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INTRODUCTION

Entrepreneurs, inventors, and innovators can be faced with an overwhelming amount of information and guidance when they plan their business startup. One area that is often neglected is the business's intellectual property (IP).[1] In fact, it is critical to attend to the protection

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1. The World Intellectual Property Organization defines intellectual property as "creations of the mind: inventions; literary and artistic works; and symbols, names and images used in commerce." WHAT IS INTELLECTUAL PROPERTY?, WORLD INTELL. PROP. ORG. 2 (2016), https://www.wipo.int/about-ip/en/ [https://perma.cc/J2WC-JYQ5]. "[IP] rights are like

of IP early in the startup process. Entrepreneurs and others need to know what to protect, as well as when and how to protect it.

In the United States, IP accounts for thirty-eight percent of Gross Domestic Product (GDP),[2] while IP and other intangible assets make up ninety percent of the market value of all S&P 500 companies.[3] Increasingly, IP is arguably "the chief engine of wealth creation and economic growth in the world."[4] However, few people have exposure to a formal IP education.[5] It is therefore vital that IP education be infused into educational curricula as widely as possible.[6] If not, "any young person today who does not understand at least the basics of intellectual property—and its value and role in science, business, arts, and the professions—will find him or herself at a distinct disadvantage in the world of tomorrow."[7]

In an effort to close this "IP education gap,"[8] national organizations, such as the Michelson Institute for Intellectual Property (Michelson IP)[9] and the National Association for Community College Entrepreneurship (NACCE),[10] are working to support educators to infuse IP education into a broad range of educational curricula. Two authors of this Essay, Professors Diane Sabato and John Diffley of Springfield Technical Community College (STCC), are currently serving as Michelson IP

any other property right. They allow creators, or owners, of patents, trademarks or copyrighted works to benefit from their own work or investment in a creation." *Id.* at 3.

2. U.S. DEP'T OF COM., INTELLECTUAL PROPERTY AND THE U.S. ECONOMY: 2016 UPDATE 30 (2016) [hereinafter 2016 UPDATE], https://www.uspto.gov/sites/default/files/documents/IPandtheUSEconomySept2016.pdf [https://perma.cc/YTA4-44D8].

3. *Intangible Asset Market Value Study*, OCEAN TOMO, https://www.oceantomo.com/intangible-asset-market-value-study/ [https://perma.cc/35HV-EUXD].

4. Gary K. Michelson, *Preface* to DAVID KLINE ET AL., THE INTANGIBLE ADVANTAGE: UNDERSTANDING INTELLECTUAL PROPERTY IN THE NEW ECONOMY 6 (David Kappos ed., The Michelson 20MM Found. 2016).

5. John Villasenor, *Intellectual Property: Valuable to Every Discipline*, THE CHRON. OF HIGHER ED. (Aug. 4, 2014), https://www.chronicle.com/article/Intellectual-Property-/147985 [https://perma.cc/T23L-C2LL].

6. *Id.*

7. Michelson, *supra* note 4, at 7.

8. C.L. Max Nikias & Gary K. Michelson, M.D., *Intellectual Property Education Crucial to America's Future*, THE HILL (Aug. 30, 2017, 3:00 PM), https://thehill.com/blogs/congress-blog/education/348354-intellectual-property-education-crucial-to-americas-future [https://perma.cc/ER47-CHXC].

9. Michelson IP is a non-profit initiative that works to support new inventors and entrepreneurs by providing them access to an IP education. *We're Closing the IP Education Gap*, THE MICHELSON INST. FOR INTELL. PROP., https://michelsonip.com/about-michelson-ip/ [https://perma.cc/BX67-FSKR].

10. NACCE is the leading organization in the United States focused on promoting entrepreneurship through community colleges by providing leadership and sustainable, innovative resources to over 300 community and technical colleges—ultimately serving more than three million students. *About Us*, NAT'L ASS'N FOR CMTY. COLL. ENTREPRENEURSHIP, https://www.nacce.com/about-us [https://perma.cc/2UV2-78P5].

Educators in Residence (IP EIR) and working to bring IP education to community college students through business, honors, and history courses. Additionally, and as part of the IP EIR Program, Professors Sabato and Diffley partnered with a leading IP law practitioner, and this Essay's third author, Attorney Richard H. Kosakowski,[11] to bring his significant expertise to community college audiences.

In this Essay, the authors will discuss the importance of IP to economic growth in general and in the context of U.S. history. The authors then discuss why IP education and knowledge are more important than ever for entrepreneurs, inventors, and innovators. The history and current state of IP education are examined, as are current efforts to infuse IP education into the community college education. Finally, Attorney Kosakowski discusses his experiences with IP law and offers best practices for protecting one's IP.

I. THE IMPORTANCE OF INTELLECTUAL PROPERTY TO ECONOMIC GROWTH

The economic growth of the United State has, from its founding, been tied directly to a spirit of innovation and invention, both of which rely on the existence and protection of IP.[12] The United States was the first nation in history to ensure the protection of IP rights in its Constitution.[13] Article I, Section 8, Clause 8 of the U.S. Constitution grants Congress the authority 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."[14] Congress acted on this authority quickly by passing the Patent Act of 1790, which laid the foundation of U.S. IP law.[15] Today, the U.S. Patent and Trademark Office (USPTO)[16]

11. *See supra* note *.

12. Shontavia Jackson Johnson, *The Colorblind Patent System and Black Inventors*, AM. BAR. ASSOC. https://www.americanbar.org/groups/intellectual_property_law/publications/landslide/2018-19/march-april/colorblind-patent-system-black-inventors/ [https://perma.cc/ZM24-DKLZ]; *see also* DAVID KLINE ET AL., THE INTANGIBLE ADVANTAGE: UNDERSTANDING INTELLECTUAL PROPERTY IN THE NEW ECONOMY 22 (David Kappos ed., The Michelson 20MM Found. 2016); John White, *The Day That Changed the World: April 10, 1790*, IPWATCHDOG (Apr. 9, 2015), https://www.ipwatchdog.com/2015/04/09/the-day-that-changed-the-world-april-10-1790/id=56422/ [https://perma.cc/9R7D-K94J]; B. ZORINA KHAN, THE DEMOCRATIZATION OF INVENTION: PATENTS AND COPYRIGHTS IN AMERICAN ECONOMIC DEVELOPMENT, 1790-1920 1–2 (Cambridge Univ. Press 2005).

13. KLINE ET AL., *supra* note 12, at 12.

14. U.S. CONST. art. I, § 8, cl. 8.

15. Patent Act of 1790, ch. 7, 1 Stat. 109, 109–12 (codified as amended at 35 U.S.C §§ 101–212).

16. 35 U.S.C. § 1.

and the U.S. Copyright Office[17] fulfill the mandate of Article I, Section 8, Clause 8 of the U.S. Constitution by issuing federal patents, registering trademarks and copyrights, and overseeing the effective mechanisms that protect new ideas and investments in innovation and creativity.[18]

The connection between IP protection and economic growth is evident in the history of every major economic and industrial breakthrough in U.S. history. Starting with the first Industrial Revolution of the mid to late nineteenth century, the number of U.S. patents issued directly corresponded with significant innovations and inventions. For example, during the 1880s, the number of new patents issued each year in the United States jumped fifty-six percent.[19] This spike in patenting corresponded with historic advances in science and technology that were the basis of the first Industrial Revolution such as the railroad, telegraph, and telephone, as well as electric light and power.[20] Patenting levels again rose significantly from 1902 to 1916 as the number of patent issuance doubled from 20,000 to 40,000 per year.[21] These years reflect the early growth of the emerging automobile and aircraft industries.[22]

Industrial innovation and invention can again be linked to a significant and rapid increase in new patent issuances in the 1960s.[23] This decade witnessed a revolution in plastics and other synthetic materials as well as major advances in the aerospace industry and a growing computer industry.[24] At the same time, the number of yearly patents increased fifty percent from 40,000 per year to 60,000 per year.[25] Between 1998 and 2019, the number of patents issued rapidly increased—a timeframe that corresponded to the Information Revolution exemplified by advances in cell phones, the internet, and biotechnology.[26] In 1998, the USPTO granted over 160,000 patents.[27] This number more than doubled over the first two decades of the twenty-first century, peaking in 2019 with 391,000

17. The U.S. Copyright Office was created in 1790 and moved to part of the Library of Congress in 1870. *Overview*, U.S. COPYRIGHT OFF., https://www.copyright.gov/about/ [https://perma.cc/E2T2-7WEY]. In 1897, the Copyright Office was officially recognized by Congress as a separate department of the Library of Congress. *Id.* Copyright laws are found in the United States Code at 17 U.S.C. §§ 101–1401.

18. *Overview*, *supra* note 17; *About Us*, U.S. PAT. AND TRADEMARK OFF., https://www.uspto.gov/about-us [https://perma.cc/X4M3-CA7K].

19. KLINE ET AL., *supra* note 12, at 22.

20. *Id.*

21. *Id.*

22. *Id.*

23. *Id.* at 22–23.

24. *Id.* at 22.

25. *Id.*

26. *Id.*

27. *U.S. Patent Statistics Chart Calendar Years 1963–2020*, U.S. PAT. AND TRADEMARK OFF., https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm [https://perma.cc/FW9F-EA3H].

patents granted.[28]

Intellectual property protections are perhaps even more important today than at any other time in U.S. history. According to USPTO data, IP accounts for thirty-eight percent of U.S. GDP.[29] Other recent research has found that IP and other intangible assets make up ninety percent of the market value of all S&P 500 companies.[30] As prolific inventor, surgeon, and IP education champion, Dr. Gary K. Michelson has argued: "Put simply, intellectual property is now the chief engine of wealth creation and economic growth in the world. And as such, it has become a subject of vital importance for *all* Americans, not just those in the legal profession."[31]

II. THE IMPORTANCE OF INTELLECTUAL PROPERTY KNOWLEDGE TO TODAY'S INNOVATORS, INVENTORS, AND ENTREPRENEURS

The entrepreneurial spirit is strong and well in the United States, as exemplified by the tech-savvy innovators of the Millennial and Gen Z generations.[32] Recent research found that nearly half of Millennials plan to start a business within the next three years.[33] Not to be outdone, many members of Gen Z have turned to social media as a platform for entrepreneurship.[34] These new innovators and entrepreneurs represent what some call the "creator economy." In general, "the creator economy represents social media influencers and creators who monetize their content online—from fashion bloggers to live-streaming gamers—and the companies built around these creators."[35] Nearly fifty million people

28. *Id.*

29. 2016 UPDATE, *supra* note 2.

30. *Intangible Asset Market Value Study*, *supra* note 3.

31. Michelson, *supra* note 4 (emphasis in original); *see also* Nikias & Michelson, *supra* note 8.

32. The Pew Research Center defines the Millennial generation as anyone born between 1981 and 1996, and Gen Z as those born from 1997 onward. Michael Dimock, *Defining Generations: Where Millennials End and Generation Z Begins*, PEW RSCH. CTR. (Jan. 17, 2019), https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/ [https://perma.cc/Y7XD-462L].

33. AMERICA'S SBDC & THE CTR. FOR GENERATIONAL KINETICS, AMERICA'S VOICE ON SMALL BUSINESS: GENERATIONAL VIEWS OF ENTREPRENEURSHIP AND SMALL BUSINESS 8 (May 2017), https://americassbdc.org/wp-content/uploads/2017/05/White-Paper-GenStudy-6-1-2017.pdf [https://perma.cc/8H7T-NEKC].

34. Denise Garcia, *How Generation Z's Social Media Savvy Entrepreneurs Are Giving Millennials a Run for Their Money*, CNBC: MAKE IT (June 9, 2018, 12:01 PM), https://www.cnbc.com/2018/06/08/how-generation-zs-social-media-savvy-entrepreneurs-are-giving-millennials-a-run-for-their-money.html [https://perma.cc/NK65-TCZH].

35. Evan Garcia, *The Creator Economy: How Social Medial Influencers Are Gaining Audiences, Earning Money*, WTTW: NEWS (Sept. 13, 2021, 5:10 PM), https://news.wttw.com/2021/09/13/creator-economy-how-social-media-influencers-are-gaining-audiences-earning-money [https://perma.cc/X3XS-SHUD].

worldwide call themselves creators.[36] Successful creators and influencers can make millions a year, and the entire "creator economy" has been valued at twenty billion dollars a year.[37]

Creators and influencers need to protect their IP. Yet the use of social media can complicate these efforts.[38] Many influencers and creators post their digital content openly on a variety of social media platforms. Without a knowledge of IP law, many individuals and businesses, especially startups, run the risk of inadvertently losing their IP rights or opening themselves up to unauthorized use of their content and ideas. Thus, it is more important than ever for emerging innovators, inventors, and entrepreneurs to receive even a basic education on IP law and the protections it affords.

III. THE PAST, PRESENT, AND FUTURE OF INTELLECTUAL PROPERTY EDUCATION

Despite the clear importance and economic value of IP, few people have historically received—formally or informally—any education in IP. Indeed, the few opportunities for such an education were available only to law students or in an occasional business seminar.[39] Even then, the specialized nature of IP law and the requirements to enter IP practice mean that few law students or lawyers receive such an education.[40] Until recently, not a single undergraduate IP class was taught at U.S. colleges or universities.[41] Such a lack of access to this vital knowledge has created an "IP education gap" that "poses a threat to U.S. leadership of the Knowledge Economy."[42] With the goal of closing this IP education gap,

36. *Id.*

37. Lucas Shaw, *The Pandemic Has Been Very, Very Good for the Creator Economy*, BLOOMBERG (Aug. 29, 2021, 6:00 PM), https://www.bloomberg.com/news/newsletters/2021-08-29/the-pandemic-has-been-very-very-good-for-the-creator-economy [https://perma.cc/X4LG-KZJL].

38. Jeff Blank, *Intellectual Property Law in the Age of Social Media*, NORTHEASTERN UNIV.: GRADUATE PROGRAMS (May 8, 2018), https://www.northeastern.edu/graduate/blog/intellectual-property-and-social-media/ [https://perma.cc/QL5M-B5Q8] (explaining that existing laws are silent with respect to the emergence of social media and its interplay with intellectual property, thus rendering the scope of protection a mystery).

39. Michelson, *supra* note 4.

40. In order to register to practice before the USPTO and engage in the practice of patent law, individuals need not only a law degree and to pass the Patent Bar Exam but also to have at least a bachelor's degree in one of a list of approved science and engineering disciplines. *See* 37 C.F.R. § 11.7 (2021); *see also* U.S. PAT. AND TRADEMARK OFF., GENERAL REQUIREMENTS BULLETIN FOR ADMISSION TO THE EXAMINATION FOR REGISTRATION TO PRACTICE IN PATENT CASES BEFORE THE UNITED STATES PATENT AND TRADEMARK OFFICE 3 (Dec. 2021), https://www.uspto.gov/sites/default/files/documents/OED_GRB.pdf [https://perma.cc/5ZVS-ZGG6].

41. Nikias & Michelson, *supra* note 8.

42. *Id.*

non-profits groups such as Michelson IP and NACCE are leading the way in supporting IP education.

IV. INFUSING IP EDUCATION INTO THE COMMUNITY COLLEGE EDUCATION

Community colleges are the most affordable and often most accessible point of entry to higher education and are therefore an ideal place to begin closing the IP education gap. In the fall of 2018, community colleges accounted for nearly half of all undergraduates in the United States.[43] Community colleges often serve traditionally underrepresented and historically marginalized populations including low-income individuals and minority groups such as Native Americans, African Americans, Latinx, and Asian Americans.[44] Thus, community colleges have the potential to be significant sources of entrepreneurship and to support equity efforts.[45] As NACCE contends,

> community college entrepreneurship education continues to provide students with the skills, information, mentorship, and access to capital that will result in successful new businesses and job creation. And, for those who do not start businesses, the workforce skills they acquire through experiential entrepreneurship education will allow them to bring needed soft skills to their chosen careers.[46]

Since 2017, Michelson IP and NACCE have provided modular IP curriculum materials to over seventy member colleges.[47] Starting in the fall of 2020, Michelson IP and NACCE announced the creation of the Michelson IP EIR Program with the goal of "further shap[ing] an impactful community of practice and seed new opportunities for vibrant,

43. *Community College FAQs*, CCRC, https://ccrc.tc.columbia.edu/community-college-faqs.html [https://perma.cc/XSB6-GWWL].

44. *Id.*

45. *See generally* REBECCA A. CORBIN & RON THOMAS, COMMUNITY COLLEGES AS INCUBATORS OF INNOVATION: UNLEASHING ENTREPRENEURIAL OPPORTUNITIES FOR COMMUNITIES AND STUDENTS (Angela Long & Susan Slesinger eds., Stylus Publishing, L.L.C. 2019); REBECCA A. CORBIN ET AL., IMPACT ED: HOW COMMUNITY COLLEGE ENTREPRENEURSHIP CREATES EQUITY AND PROSPERITY (John Hunt Publishing 2021).

46. NAT'L ASS'N FOR CMTY. COLL. ENTREPRENEURSHIP, 2020 NACCE ANNUAL REPORT 3 (2020), https://assets.noviams.com/novi-file-uploads/nacce/NACCE_2020_Annual Report_Web.pdf [https://perma.cc/J56Q-CVDW].

47. *NACCE & Michelson IP Educator in Residence Initiative*, NAACE, https://www.nacce.com/nacce-and-michelson-ip-educator-in-residence-initiative [https://perma.cc/SQU9-JCWR]; *Partner, Plug-in, Pioneer: NACCE Partnership Update*, THE MICHELSON INST. FOR INTELL. PROP. (May 26, 2020), https://michelsonip.com/nacce-partnership-update/ [https://perma.cc/AB9L-3YB9].

local entrepreneurship education."[48] The program currently works with and supports IP EIR at five colleges across the United States to infuse IP education across an array of academic disciplines.[49] Through the program, IP EIR "act as IP education influencers within their college and community networks . . . while embed[ding] relevant modular Michelson IP curricula within their current courses"[50] at their home institutions and produce new courses and educational programming.[51] The program also affords IP EIR the opportunity to collaborate and co-develop best practices and other professional development materials for other IP educators.[52]

In Springfield, Massachusetts, STCC was selected to participate in the inaugural IP EIR Program. As IP EIR, Professors Diane Sabato and John Diffley have used the open educational resources (OERs) provided by Michelson IP to integrate IP educational materials into several of their individual courses. Additionally, Professors Sabato and Diffley partnered with a local IP Attorney, Richard H. Kosakowski, to produce free and public webinars and talks covering the essentials of IP law and best practices for protecting IP.

Integrating IP into community college classes was aided by using Michelson IP OER materials. These free OER materials from Michelson IP include a full textbook entitled *The Intangible Advantage*, course lecture slide decks, learning management system modules, and concise instructional videos on IP basics. Professors Sabato and Diffley have been able to utilize Michelson IP OER materials to build course modules, journal reflection assignments, discussion questions, hands-on projects, and exam questions.

These IP OER can be adapted and used in a wide variety of classes and disciplines. Indeed, Michelson IP educational materials have been incorporated into classes ranging from traditional business courses, honors courses focusing on bringing an invention or innovation to market, in general U.S. history survey courses, and even local history courses.

In her business and honors courses, Professor Sabato uses Michelson IP resources directly and as supplemental materials. Business classes focus on what to protect, as well as when and how to protect IP, utilizing the IP basics video series. For example, an assignment early in an

48. *The Michelson 20MM Foundation and NACCE Welcome Five Colleges . . .* , NAACE (Sept. 23, 2020) https://www.nacce.com/news/the-michelson-20mm-foundation-and-nacce-welcome-five-colleges [https://perma.cc/VJ3Q-8AZ3].

49. *NACCE & Michelson IP Educator in Residence Initiative*, *supra* note 47. The programs participating schools make up an ideal geographical spread, also reaching Ocean County College, NJ; Central New Mexico Community College, NM; Fullerton College, CA; and Pasco-Hernando State College, FL.

50. *Id.*

51. *Id.*

52. *Id.*

entrepreneurship course requires students to view the basics of IP videos and write an essay on what copyrights, trademarks, and patents protect, and when they should apply for protection as they plan their startups. The honors program course, Idea to Market, provides the textbook as its primary text. Additionally, a local inventor, who holds multiple global patents, speaks to the class about his own IP. He includes discussion of how trade secret law can be the best choice for them. The Michelson IP video series is assigned to provide background and context for his presentation.[53]

In a Survey of U.S. History and Government course, Professor Diffley integrated IP education in a number of modules and topics. The history and importance of the U.S. patent system was easily integrated into modules and discussions about the U.S. Constitution. The importance of IP was also infused in historical discussions and modules covering topics such as the Market Revolution and the first Industrial Revolution. In a local course focused on the history of Springfield, Massachusetts, IP law and history are framed to help explain and explore the impact of innovation and invention on Springfield and the Connecticut River Valley's role as a historic "Forge of Innovation."[54] In both classes, Michelson IP OERs were easily adapted and integrated with the existing course curricula.

Yet, formal classroom education is just one format for spreading IP education. To this end, Professors Sabato and Diffley were fortunate to collaborate with a leading local IP Attorney, Richard H. Kosakowski. Drawing on Attorney Kosakowski's significant IP knowledge and

53. All of the Michelson IP resources are available to browse on their website, www.michelsonip.com. *See, e.g.*, *Video Series*, THE MICHELSON INST. FOR INTELL. PROP., https://michelsonip.com/iptoolkit/ [https://michelsonip.com/iptoolkit/].

54. *See* MICHAEL S. RABER ET AL., FORGE OF INNOVATION: AN INDUSTRIAL HISTORY OF THE SPRINGFIELD ARMORY, 1794–1968 (2009); *see also* THE SPRINGFIELD ARMORY: FORGE OF INNOVATION, http://www.forgeofinnovation.org/index.html [https://perma.cc/M7CS-WGEG]. Focusing on the Armory, the "Forge of Innovation" included what became known as the "American System of Manufactures." Main innovations included the use of interchangeable parts in weapons manufacturing and then the mechanized production of these interchangeable parts. One major innovation was the Blanchard Lathe—a powered gun stock turning lathe that allowed for the mass production of uniform gun stocks. Overall, the Armory, as well as the numerous firearm manufacturers that popped up in the Valley, became a draw for precision manufacturing, metal working, and production methods. By WWII, the Armory was mass producing what, in many ways, was the first semi-automatic assault rifle for the U.S. military. Other examples of "firsts" developed in Springfield and the surrounding area include the creation of vulcanized rubber by Charles Goodyear, production of sleeping train cars—better known as Pullman Cars—clamp-on ice skates, hole punchers, U.S. post cards, toilet paper dispensers using oval paper rolls, and swing-through handcuffs. Inventors Charles and Frank Duryea also tested a gasoline powered internal combustion engine car on Taylor Street in Springfield, in 1892, and were selling them by the next year. Knox Auto built the first motorized fire trucks. And between 1929–1934, the Granville brothers were manufacturing racing airplanes in Springfield.

experience, Professors Sabato and Diffley were able to produce a series of free, public workshops introducing IP to a broad audience. They were able to amplify the impact through their regional entrepreneurship collaborations and publications of the webinar recordings on STCC's YouTube channel.[55]

Attorney Kosakowski's expertise and real-world experiences as an IP law practitioner are an invaluable resource for those looking to learn about and/or protect their own IP. These experiences are instructive in both what people need to do, and what to avoid, when it comes to protecting their IP.

V. INTELLECTUAL PROPERTY FROM AN IP ATTORNEY PRACTITIONER'S PERSPECTIVE

After an introduction in this section about my career in IP law, I will introduce the four main areas of IP Law (patents, trade secrets, trademarks, and copyrights) and explain their similarities and differences in some detail. I will also discuss some of the ways that these main areas of IP law impact entrepreneurs, startups, and small companies. I will then discuss some practical aspects of both exploiting IP rights and enforcing IP rights.

A. *Introduction*

In my over thirty-year career as an IP attorney, I have had the privilege of working closely with clients of all sizes in many different technologies and industries and on a myriad of IP legal issues.[56] These clients range from individual entrepreneurs, startups, and small companies all the way up to large multi-national corporations and universities. As a result, I have come to understand and appreciate the diverse IP legal issues and situations that smaller entities are uniquely faced with in part due to their size and their typical lack of resources. For example, to obtain and maintain a single issued U.S. patent, it typically costs in excess of $10,000 to cover USPTO costs, attorney's fees, and other third-party fees and costs.[57] It can be difficult, at least initially upon startup, for small entities to come up with this amount of money for something like IP that may not

55. *See, e.g.*, Springfield Tech. Cmty. Coll., *Ask Me Anything About IP*, YOUTUBE (May 26, 2021), https://www.youtube.com/watch?v=FgZ0iqYPHMM [https://www.youtube.com/watch?v=FgZ0iqYPHMM].

56. *See supra* note *. Attorney Kosakowski has practiced IP law for over thirty-three years both as an in-house counsel and as a partner with a large boutique IP law firm. He holds two associate degrees in electronics from STCC, and an electrical engineering degree and a law degree from Western New England University School of Law. Attorney Kosakowski is currently in private practice as a solo practitioner working primarily with entrepreneurs, startups, and small companies.

57. *How Much Does a Patent Cost: Everything You Need To Know*, UPCOUNSEL (June 18, 2020), https://www.upcounsel.com/how-much-does-a-patent-cost [https://perma.cc/7MDC-ME9T].

appear all that important to them early on. Oftentimes, entrepreneurs rely on their personal savings or loans from friends and family to fund their startup ventures.[58]

I have also seen firsthand how larger, well-established entities exploit these smaller entrepreneurs and startups to the advantage of the larger entities. For example, large entities having many issued trademark registrations, and with "deep pockets," oftentimes have their attorneys send "cease-and-desist" letters on somewhat subjective and nebulous claims of trademark infringement to smaller entities to coerce them to stop using their allegedly similar trademark. The costs for the small entity to essentially change a key component of their brand can be staggering—particularly if that brand has been established over a long period of time. These large entities know that rarely does a small entity have the financial resources to fight them in court.[59] Thus, this form of "trademark bullying" is often successful.[60]

Nevertheless, issues common to all these different sized entities include how best to legally protect their innovations and to leverage or exploit those innovations for their financial benefit.

Individual entrepreneurs and startups are inherently faced with certain real-world obstacles that much larger corporate entities most often have greater resources (e.g., personnel, financial, etc.) to overcome or to avoid in the first place. First and foremost, is developing a viable business around the innovation. A big part of business development is recognizing

58. *Entrepreneurs Rely on Personal Savings, Second Jobs to Fund Critical First Year*, CISION: PR NEWSWIRE (Oct. 10, 2019), https://www.prnewswire.com/news-releases/entrepreneurs-rely-on-personal-savings-second-jobs-to-fund-critical-first-year-300936339.html [https://perma.cc/SE59-SBQF]; *see also* Dave Lavinsky, *5 Common Funding Sources For Startup Businesses & Growth*, GROWTHINK, https://www.growthink.com/content/5-most-common-funding-sources [https://perma.cc/7KZA-69DK]

59. *See* Nick O'Malley, *Iron Duke Brewing in Ludlow Changing Name After Receiving Cease and Desist from Duke University*, MASSLIVE (June 18, 2020), https://www.masslive.com/news/2020/06/iron-duke-brewing-in-ludlow-changing-name-after-receiving-cease-and-desist-from-duke-university.html [https://perma.cc/M6U6-ACEH] (demonstrating how a small-town brewery lacked the "financial resources to wage another war" in a trademark battle against Duke University).

60. *See* Paige Carlisle, *The Blue Devil™ Bully: Duke Law Professors Outline University's Aggressive Trademark Defense*, DUKE CHRONICLE (Mar. 24, 2021, 1:45 AM), https://www.dukechronicle.com/article/2021/03/duke-university-blue-devil-bully-trademark-defense-law-professor-report [https://perma.cc/8DV7-XALA] (showcasing that those with the financial capabilities to defend their trademarks often do so, and do so successfully); *see also* Roxana Sullivan & Luke Curran, *Trademark Bullying: Defending Your Brand or Vexatious Business Tactics?*, IPWATCHDOG (July 16, 2015), https://www.ipwatchdog.com/2015/07/16/trademark-bullying-defending-your-brand-or-vexatious-business-tactics/id=59155/ [https://perma.cc/RTB7-6DAT] (stating that the USPTO defined trademark bullying as "the vexatious practice of a 'trademark owner that uses its trademark rights to harass and intimidate another business'" (quoting U.S. DEP'T OF COM., TRADEMARK LITIGATION PRACTICES 15 (Apr. 2011), https://www.uspto.gov/sites/default/files/trademarks/notices/TrademarkLitigationStudy.pdf [https://perma.cc/3TNJ-AH6E])).

and dealing with the various IP legal issues that these small entities will undoubtedly encounter—and successfully doing so early in the business startup process.[61] Right from the start, small entities must navigate their way through the minefields of existing IP legal rights held by others (e.g., issued patents, common law copyrights and trademark rights) to avoid infringing on those rights. Otherwise, their business might not get off the ground due to the legal problems they may encounter. Also, small entities should take steps to obtain their own IP legal rights (e.g., obtain patents and trademark registrations) to fend off others.

Large entities usually have big advantages in the world of innovation protection and exploitation due mainly to their advanced knowledge and usage of IP.[62] That is, large entities know who their competitors are and have often developed detailed data over time on the IP rights of those competitors, including for example, all of the competitor's patents and the technologies and products of the competitor that the claims of those patents cover. This gives a large entity competitive intelligence, for example, as to how to "design around" a competitor's patent to avoid infringement.[63] One hurdle for individual entrepreneurs and startups is acquiring the requisite knowledge about basic IP legal issues. Entrepreneurs and startups typically have great ideas for products or services—usually for solving common real-world problems or for disrupting a long-accepted norm in an industry with a perceived better way of doing business. However, often lurking around the corner are enterprising individuals and large entities who see the value in the solutions put forth by these entrepreneurs and startups and want to capitalize on their solutions to the detriment of the innovators.[64] Thus, it

61. As described in various guides for startup businesses, protecting business ideas early on means staking out lucrative market territory—before costly battles over IP infringement can aris—and being better prepared to defend that territory in the future. *See, e.g.*, Darren Heitner, *Why Intellectual Property Is Important for Your Business and What You Should Be Doing Now to Protect It*, INC. (May 31, 2018), https://www.inc.com/darren-heitner/why-intellectual-property-is-important-for-your-business-what-you-should-be-doing-now-to-protect-it.html [https://perma.cc/QKU6-3BSP].

62. Because of their advanced knowledge and larger financial resources, enabling big companies to produce more goods and services more cheaply, when large companies are also quicker on the IP draw, they can easily edge out budding competitors—to the detriment of those smaller businesses and our economy as a whole. Sati-Salmah Sukarmijan & Olivia de Vega Sapong, *The Importance of Intellectual Property for SMEs; Challenges and Moving Forward* 1 UMK PROCEDIA 74, 75 (2014).

63. *See* Pooja Yadava, *India: Competitive Intelligence in IPR*, MONDAQ (Oct. 7, 2019), https://www.mondaq.com/INDIA/PATENT/851794/COMPETITIVE-INTELLIGENCE-IN-IPR [https://perma.cc/S53B-EZZ6]; Joseph Hadzima, *How to Use IP and Patent Information For Competitve Intelligence*, IPVSION, https://info.ipvisioninc.com/blog/how-to-use-ip-and-patent-information-for-competitive-intelligence [https://perma.cc/K9HL-Y8XJ].

64. *See, e.g.*, Casey Newton & Nilay Patel, *'Instagram Can Hurt Us': Mark Zuckerberg Emails Outline Plan to Neutralize Competitors*, THE VERGE (July 29, 2020, 2:07 PM),

is critical that these individual entrepreneurs and startups have a working knowledge and understanding of the various types of IP legal protections and their real-world applications and usages. That way, they can properly identify and protect their valuable innovations right from the inception of their business as well as leverage and exploit them for their gain later during the life of their business.

For the last several years, I have purposely focused my IP legal practice primarily on helping individual entrepreneurs, startups, and small companies to identify, protect, and leverage the IP legal issues associated with their innovations. I take the most satisfaction and pride in my work when I am helping these individuals and smaller entities. Not only have I formally taken on these individuals and smaller entities as paying clients, but I have also volunteered my time as a mentor to various individual entrepreneurs who have signed up for formal no-cost programs offered by several local business accelerators in the region, including Valley Venture Mentors in Springfield, Massachusetts, and EforAll (Entrepreneurship for All) in Holyoke, Massachusetts.

These entrepreneurs are often faced with an overwhelming and confusing amount of information not only on various aspects of starting and running a business in general, but also with respect to the various specific IP legal issues that they will likely encounter during the startup process and later during its operation. A situation I frequently encounter is one that evidences a lack of understanding of the various types of IP legal protection available to entrepreneurs. I often hear incorrect statements such as "I want to patent my business name" or "I want to copyright my new invention." This usually triggers a response from me regarding the basic definitions of the four main types of IP (i.e., patents, trademarks, copyrights, and trade secrets), together with explanations regarding their similarities and differences, how the various IP legal rights are obtained and maintained, and how these four areas interact with one another. My goal is to impart enough detailed information so that the entrepreneur can then better recognize and understand how to use each type of IP legal protection in their startup business.

B. *Inventions—Patents versus Trade Secrets*

A common IP legal situation facing entrepreneurs is when they have invented a solution to a problem, they will then likely need some type of legal protection for that solution. This is particularly true if the problem is relatively widespread and the resulting solution is novel and, thus,

http://www.theverge.com/2020/7/29/21345723/facebook-instagram-documents-emails-mark-zuckerberg-kevin-systrom-hearing [https://perma.cc/8DP2-79CU] (quoting Mark Zuckerberg on his plans to neutralize rising competitors: "One way of looking at this is that what we're really buying is time. Even if some new competitors springs up, buying Instagram, Path, Foursquare, etc [sic] now will give us a year or more to integrate their dynamics before anyone can get close to their scale again.").

relatively valuable. The legal protection typically sought is one that prevents others from using the innovative solution without the approval or consent of the inventor; in other words, to deter or prevent someone from selling cheaper "knock-offs" of that solution, whether it is a product or process.[65] This is done by the entrepreneur to protect the relatively large investments in time, money, and other resources needed to develop and market the innovation and the resulting product or method; that is, to protect the "market discriminator" or the "competitive advantage" for the entrepreneur that the technical information in the solution represents.[66]

When the solution involves an improvement to the structure and/or function of an existing product, or to a method or process for making or doing something, the IP legal issue becomes a choice between trying to obtain a patent on the solution or in keeping the solution or "know-how" as a trade secret (i.e., keeping it proprietary or confidential). Trade secrets offer the innovator legal rights in the nature of protection from misuse by others immediately after the solution has been created.[67] Also, the innovator does not need to apply for and receive approval from a government agency to obtain and/or maintain the trade secret legal rights, which theoretically last forever.[68] Instead, all the innovator need do is take several appropriate and continuing steps to maintain the secrecy of the solution. These steps usually can be performed at little or no cost (e.g., no attorney fees) to the innovator. They simply include limiting access to the trade secret or proprietary information by employees and outsiders and using confidentiality or non-disclosure agreements when trade secret information must be disclosed to others (e.g., third party vendors).[69]

However, the legal rights afforded trade secrets disappear if someone legally obtains access to the trade secrets and can discern the underlying trade secret information.[70] This can happen relatively easily if someone purchases the product containing the trade secrets and is able to figure out what those trade secrets are via "reverse engineering"—e.g., taking apart the product and examining its components, or getting access to the

65. *See* Heitner, *supra* note 61.

66. *See* Michael J. Kasdan, *What Start-ups Need to Know About Intellectual Property*, NAT'L L. REV. (Sept. 25, 2018), https://www.natlawreview.com/article/what-start-ups-need-to-know-about-intellectual-property [https://perma.cc/FK8F-SBGZ] (noting that entrepreneurs are simultaneously tasked with "building the core team, structuring the company, attracting investors, developing the product/service, and developing key partnerships, sales, channels, and marketing plans").

67. Basics, *Frequently Asked Questions: Trade Secrets*, WORLD INTELL. PROP. ORG. (Oct. 2021), https://www.wipo.int/tradesecrets/en/tradesecrets_faqs.html [https://perma.cc/4T4U-4MGE].

68. Protection and Legal Framework, *Frequently Asked Questions: Trade Secret*, WORLD INTELL. PROP. ORG. (Oct. 2021), https://www.wipo.int/tradesecrets/en/tradesecrets_faqs.html [https://perma.cc/4T4U-4MGE].

69. *Id.*; 18 U.S.C. § 1839(3).

70. *Id.*

underlying software and discerning its functionality.

In contrast, a patent affords its owner (typically the one or more inventors or an entity to which the inventors have assigned their ownership rights) the right to exclude others from commercializing (e.g., making, using, selling, offering to sell, and importing into the United States) the invention "claimed" or defined in the patent.[71] These rights of exclusion only last for a relatively short period of years and cannot be renewed.[72] Also, these rights do not begin until after an application has been made to a government agency (e.g., the USPTO), and the claimed invention has been deemed to be new or novel after an extensive examination period typically lasting about two years.[73] Further, the patent application must disclose in detail at least one example of how to make and use the claimed invention.[74]

Of high practical importance is that the USPTO publishes a patent application eighteen months after it is filed.[75] This eighteen-month publication date most often occurs prior to the issuance of a patent.[76] However, not all patent applications ultimately issue as a patent, as they may fail to meet all the criteria of patentability for the underlying invention.[77] This results in the extremely disadvantageous situation for the innovator/inventor of having disclosed details of its invention to the public in the published patent application—and not receiving in return a patent on its invention. The publication of the patent application destroys any trade secret protection that the inventor may want to claim it has in the published invention after the patent application has been denied.[78]

Thus, the innovator/inventor entrepreneur is often left with the dilemma of having to decide whether to try to obtain a patent's rights of exclusion or to keep the invention confidential as a trade secret. More

71. *See* 35 U.S.C. § 271 (defining infringement).

72. *See id.* § 154(a)(2) (2015) (ending the term at twenty years from the application filing date).

73. *See id.* § 102 (defining novelty as a requirement for patentability); *see also Patents Pendency Data November 2021*, U.S. PAT. AND TRADEMARK OFF., https://www.uspto.gov/dashboard/patents/pendency.html [https://perma.cc/JRH7-REAG] (showing traditional total pendency to be roughly a 23.4-month waiting period as of December 2021).

74. § 112 (laying out specifications for patents).

75. *Id.* § 122(b)(1)(A) (2013); 37 C.F.R.§ 1.211(a) (2021).

76. *See Patents Pendency Data November 2021*, *supra* note 73 and accompanying text.

77. *See U.S. Patent Statistics Chart Calendar Years 1963–2020*, *supra* note 27 (showing that in 2019 alone, less than half of submitted patent applications—only 391,103 of 669,434—were granted).

78. Steven R. Daniels & Sharae' L. Williams, *So You Want to Take a Trade Secret to a Patent Fight? Managing the Conflicts Between Patents and Trade Secret Rights*, AM. BAR. ASS'N. (Aug. 5, 2019), https://www.americanbar.org/groups/intellectual_property_law/publications/landslide/2018-19/july-august/so-you-want-take-trade-secret-patent-fight/ [https://perma.cc/B78H-5ZKT] ("As noted above, however, the nature of patents means that the patent disclosure destroys any trade secrets within it.").

specifically, the innovator/inventor must decide on the one hand whether to disclose the details of how to make and use the invention in the patent application, and go through the costly and lengthy process of trying to obtain the exclusionary rights of a patent, with no guarantees as to a successful outcome. On the other hand, the inventor can choose the low-cost route of attempting to keep the information about the innovation as a trade secret knowing that the legal protections afforded trade secrets could disappear instantaneously, which could imperil the continued viability of the business built around those trade secrets.

Of consideration is the fact that the scope of the subject matter of the information that qualifies for trade secret protection is relatively much broader than that of the technical information which may be statutory subject matter for patents. This can afford the entrepreneur legal protections under trade secrets for certain types of business information that fail to qualify as patentable subject matter. Essentially, any information that gives its owner a competitive advantage over another who does not know of that information qualifies as trade secret information.[79] This can simply be lists of suppliers and their costs to the business owner, or customer buying preferences.[80]

I have often been asked to help the innovator/inventor solve this dilemma in real-world situations. My resulting advice usually depends on certain factors primarily regarding the nature and practical application or use of the trade secret information. For example, if the innovative solution involves an improvement to a commercial product that finds widespread use in public, almost always that innovation is one that can be discerned through relatively easy (and perfectly legal) reverse engineering. As such, the use of trade secrets to protect the innovation is advised against, and attempting to obtain patents instead is the preferred course of action.

C. *Trade Secrets—More Details*

A well-known example of a product containing trade secret or proprietary information is the Coca-Cola® soda, invented in the late 1800s yet still able today to protect its proprietary formula and recipe even given the ubiquitous nature of the product.[81] The Coca-Cola® Company has carefully guarded its recipe and formula for over 100 years, as many have tried to reverse engineer it but have failed.[82] Coca-Cola® could have obtained patents on its recipe and formula when first introduced long ago,

79. Basics, *supra* note 67; 18 U.S.C. § 1839(3) (defining "trade secret" as confidential information that conveys an economic advantage to its possessor).

80. (Basics, *supra* note 67.

81. *See* Tierryicah Mitchell, *Shh!! It's a Secret!: Coca-Cola's Recipe Revealed?*, WAKE FOREST UNIV. J. BUS. & INT. PROP. (Feb. 28, 2011), http://ipjournal.law.wfu.edu/2011/02/shh-its-a-secret-coca-colas-recipe-revealed/ [https://perma.cc/G8CP-X92L].

82. *See id.*

but those patents would have expired in the early 1900s and after that anyone could have made and sold the exact same Coca-Cola® soda without fear of legal reprisal from or payment of royalty money to Coca-Cola®.[83] As such, Coca-Cola® would have lost its market discriminator and competitive advantage and certainly would not be the dominant force in the soda marketplace that it still is today. This demonstrates that in some contexts the benefits of trade secret protection outweigh those of patent protection.

However, Coca-Cola® soda is an unusual and extreme example of a commercially available product that is able to maintain its trade secret legal status.[84] Most publicly available products are not nearly as amenable to trade secret protection due to their ease of legitimate reverse engineering.

In contrast, a common type of innovation that does lend itself to trade secret legal protection is a method or process for doing something—e.g., for making a product or some other type of construction, fabrication, treatment or "performing a task" process.[85] The innovation may reside in the combination of various steps in a particular method.[86] While the process may not be novel as to rise to be patentable, it nevertheless may give the entrepreneur a competitive advantage over others who do not know of it. These types of methods or processes are commonly found in locations such as commercial, industrial, or office buildings, and involve or are carried out by some type of machine operating on a tangible (i.e., "raw") material.

For example, a local company here in New England may have developed a specific method of fabricating a component of a product such as a firearm (Smith & Wesson®) or a jet aircraft engine (Pratt & Whitney®). The innovative method may involve machining a piece of raw material such as titanium, steel, or aluminum in a certain way to achieve a desired structure for the component of the product. This innovative machining method may give the manufacturer an advantage over its competitors who don't know of that method and, thus, do not use that method in their own manufacturing operations. As such, it is relatively easy for the entrepreneur to restrict access to the process being performed in its facility—to guests and visitors and even to certain employees.[87] Also, even if the process makes a product that is sold

83. *See id.* (noting that Coca-Cola first patented its original formula, but did not bother to patent the formula again once it changed).

84. *See id.* ("The secrecy surrounding the formula has continued throughout the years so much so that it is rumored that only two people at any given time know the formula.").

85. *See* Basics, *supra* note 67.

86. *Id.*

87. Business and Practical Considerations, *Frequently Asked Questions: Trade Secrets*, WORLD INTELL. PROP. ORG. (Oct. 2021), https://www.wipo.int/tradesecrets/en/tradesecrets_

commercially, the process for making the product is oftentimes one that cannot be discerned from a direct inspection or reverse engineering of the purchased product.[88]

I have been asked on occasion to perform an audit of a client's trade secrets and then to advise them on best practices for keeping their valuable proprietary information as a trade secret. To this end, I have them give me access to their facility and offices where I walk around looking for processes being performed on machines and other equipment. I also look for the presence of any signs, or other indicia, warning employees and visitors that the facility contains proprietary information and/or restricting access to certain parts of the facility. By doing this, I am essentially looking for any "leak points" where a company's trade secret information could easily escape and become public information and is no longer secret information—thereby destroying the trade secret legal protection in that information and its corresponding former high value to the company virtually instantaneously. A discussion then ensues with management where I advise that certain steps be taken to close off these leak points.

Along these same lines, in widespread use today, are methods or processes embodied in software running on a processor or other type of data processing circuit that itself is embodied in popular and ubiquitous products such as smartphones, desktop computers, and tablets or notebook computers. These data processing methods often represent valuable proprietary innovations in the operation of the device. Yet, most often, the exact data processing methods embodied in the software (e.g., source code) running on these devices cannot be discovered by an attempt to reverse engineer the software. Therefore, such methods lend themselves to adequate legal protections from trade secrets. Note that patents may be obtained on these data processing methods embodied in the software. However, such patents have their inherent drawbacks in terms of the relatively long time they take to issue and the requirement of detailed disclosure in the patent of at least one example of how the method operates.

D. *Patents—More Detail*

The two most popular types of patents are utility patents and design patents.[89] Utility patents protect the novel structure and functionality of

faqs.html [https://perma.cc/4T4U-4MGE] ("[M]aking sure that a limited number of persons know the secret and that all those who do are well aware that it is confidential information. For example, such steps can include restricting access to buildings, marking confidential documents and establishing IT security.").

88. *Id.* ("When the secret relates to a manufacturing process rather than to a product, as [sic] products would be more likely to be reverse engineered.").

89. *See U.S. Patent Statistics Chart Calendar Years 1963–2020*, *supra* note 27.

an article of manufacture or product without regard to its appearance.[90] In contrast, design patents protect the new, original, and ornamental (i.e., non-functional) design or visual aesthetic appearance of an article—specifically, the design (i.e., shape) of the article itself or a portion thereof or a design or ornamentation (e.g., colors, graphics, etc.) applied to the article (i.e., surface treatment).[91] Design patents are somewhat akin to copyright protection for works of art. A simple way of looking at design patents is that if there are many different ways that an article or product can look in its overall appearance, then it is more likely that the design of the product is not dictated primarily by its function and, thus, the design can be protected by a design patent. In contrast, if there are only a small number of possible different overall appearances for a product, then it is likely that the design is dictated primarily by function and not by ornamentality—as such, the design cannot be protected by a design patent.[92]

In general, utility patents afford stronger legal protections than do design patents primarily because it is much more difficult for someone to "design around" or avoid the legal protections of a utility patent than of a design patent. If a product is only protected by a design patent, then to avoid infringing that design patent, all someone need do is change the overall ornamental design of the product while keeping its functionality. Note that an article or product may be covered by both utility and design patents, which will afford the strongest and most expansive protection against counterfeiters or "knock-offs."[93] Further, design patents are less expensive than utility patents and are quicker to obtain. Also, in contrast to utility patents, the USPTO does not publish design patent applications prior to their issuance as a patent.[94] Thus, consideration should be given to getting a design patent for a product if the design of the product is something that distinguishes the product from products of competitors in the marketplace and if customers may consider the ornamental design of the product when deciding whether to purchase it.

Common types of articles of manufacture or products that are amenable to design patents (and possibly to utility patents as well) include consumer goods such as kitchen products, apparel, and sporting goods equipment. In the past, I have obtained both design patents and utility

90. *Patent Process Overview*, U.S. PAT. AND TRADEMARK OFF., https://www.uspto.gov/patents/basics/patent-process-overview#step1 [https://perma.cc/FX7Y-BALB].

91. *Id.*

92. *See Design Patent Application Guide*, U.S. PAT. AND TRADEMARK OFF., https://www.uspto.gov/patents/basics/types-patent-applications/design-patent-application-guide#def [https://perma.cc/8GWG-E57F].

93. *See Section 1502 Distinction Between Design and Utility Patents*, USPTO.GOV (June 25, 2020, 6:21 PM), https://www.uspto.gov/web/offices/pac/mpep/s1502.html [https://perma.cc/T5B7-2U8Z].

94. 35 U.S.C. § 122(b)(2)(iv).

patents for a client entrepreneur who invented both ornamental and functional features of a golf club.[95] That inventor had worked for years for big, well-known companies designing golf clubs but wanted to go out on his own and market golf clubs with innovative features. These patents and the legal protections afforded thereby allowed my client to develop his business without fear of someone with bigger resources successfully stealing his innovations and profiting off them.

E. *Trademarks*

Regardless of whether an entrepreneur has innovated or invented any type of solution in the form of a product or method that may lend itself to patent or trade secret protection, most often an entrepreneur wants to develop a brand for its new business. In general, a "brand" encompasses the totality of the different aspects of a business, including the way the business holds itself out to its customers in its marketing and operations, and how its customers interact with the business in purchasing its products or services.[96] A brand also includes its trademarks, which typically comprise the words and/or logos or designs used to identify the brand.[97] As such, trademarks function as "source identifiers" in the relevant marketplace, and over time they often become the most valuable asset of a business, especially for franchise businesses where franchisees often pay large sums of money to be able to use the trademarks of the franchisor.

Thus, it is vitally important when starting a new business to carefully select and vet, or "clear," all trademarks prior to their use and registration. The trademark laws allow someone to use and register a mark on goods and/or services.[98] Specifically, the first person or entity to use a particular mark on certain goods or services that are sold or provided in commerce has priority over anyone else who comes after them and tries to use a similar mark on similar goods or services. If that were to happen, it may result in a likelihood of confusion occurring in the relevant marketplace between consumers.[99] The first person/entity to use a mark can then take action to prevent or stop the second user from starting or continuing to use its confusingly similar trademark.[100]

95. *See, e.g.*, U.S. Patent No. 359, 331 (design patent); U.S. Patent Nos. 5,324,033; 5,326,105; 5,395,109 (utility patents).

96. Will Kenton, *Brand*, INVESTOPEDIA (Sept. 6, 2021), https://www.investopedia.com/terms/b/brand.asp [https://perma.cc/GRF7-N22D].

97. *What Is a Trademark?*, U.S. PAT. AND TRADEMARK OFF., https://www.uspto.gov/trademarks/basics/what-trademark [https://perma.cc/RJR3-RNUK].

98. (*Id.*

99. *Likelihood of Confusion*, U.S. PAT. AND TRADEMARK OFF., https://www.uspto.gov/trademarks/search/likelihood-confusion [https://perma.cc/RJR3-RNUK]; *see also* 15 U.S.C. § 1114(1) (finding infringement where usage is likely to cause confusion).

100. § 1114(1)–(2) (addressing the rights and remedies for an owner of an infringed right).

I am often hired by entrepreneurs starting new businesses to assist them with selecting and clearing proposed trademarks for use and registration. This process typically comprises advising them to select marks that are inherently distinctive and not merely descriptive of their goods or services.[101] The more "made up" or fanciful the word trademark (e.g., Rolex®, Kodak®, Exxon®) or arbitrary (i.e., use of a word in other than its normal sense—e.g., Apple® for computers, Camel® for cigarettes), then the better that mark will serve to function as a source identifier.[102] This is because consumers associate trademarks with the particular goods and/or services and not with anything else such as a description of some feature or quality of the goods or services (e.g., Excellent Pizza or Three-Cheese Pizza).[103] Also, trademarks should function as adjectives and not as the noun or generic description of the goods or services themselves—for example, ROLLERBLADE® in-line skates is proper usage whereas Rollerblades is not proper usage.[104]

However, in my experience, businesses tend to want to pick a trademark that is descriptive or laudatory of a particular feature of the products or services that they plan to market to customers, instead of the trademark being uniquely distinctive of the products or services being sold. This can lead to problems with both registration and use of the mark.

On the one hand, if one attempts to register a descriptive mark with the USPTO, there is a good chance the registration will be refused because of the descriptive or generic nature of the mark.[105] Also, descriptive marks tend to be similar to other marks already in use and possibly also registered. As such, it is likely that the prior user will file an opposition with the USPTO to the registration of the mark, especially if the prior user's mark is well known. The opposition proceeding in the USPTO can be a lengthy and expensive process with no guarantee of success.

On the other hand, if one picks a descriptive mark that is close to another mark that someone is already using on similar goods or services, then they run the real risk of having the earlier user send a demand letter informing the later user of their superior trademark rights and requesting that they immediately cease and desist usage of its mark. This can happen even if the prior user does not have a U.S. federal trademark registration for its mark. In this case, the prior user is relying on its common law trademark rights to stop the infringing usage. This can be devastating to the business. At a minimum, it may require a re-branding of the business,

101. *Strong Trademarks*, U.S. PAT. AND TRADEMARK OFF., https://www.uspto.gov/trademarks/basics/strong-trademarks [https://perma.cc/48AR-NY3G].

102. *Id.*

103. *Id.*

104. *See* Simon Tulett, *'Genericide': Brands Destroyed by Their Own Success*, BBC NEWS (May 28, 2014), https://www.bbc.com/news/business-27026704 [https://perma.cc/G83D-DSKV] (describing how improper usage has led to the loss of certain trademarks).

105. *See Strong Trademarks*, *supra* note 101.

which can be costly. They will need to change things like their website URL and content, other marketing materials, and anything else that had the prior trademark affixed to it. Also, large businesses that own registrations for their marks usually have "deep pockets" which enable them to litigate the matter to get the later user to stop using the similar mark (e.g., McDonalds's, Anheuser-Busch).[106]

Thus, it is critical that a business choose a unique trademark and clear the mark against all other marks for similar goods or services prior to adopting and using the mark. Else, the business risks incurring expenses later on in having to change over to a new trademark.

F. *Copyrights*

IP legal issues relating to copyrights occur when an entrepreneur creates an original idea that is reduced to a writing, music, art, or a photograph.[107] Under the U.S. federal copyright laws, legal rights in the nature of copyrights begin as soon as the original idea is reduced to a tangible medium of expression (the "work").[108] These legal rights allow the owner of the copyrights to control the reproduction and distribution of copies of the work along with the preparation of derivative works and to perform, display, and broadcast the work publicly.[109] The owner of copyrights in a work is usually the author but may be someone else if a "work for hire" or ownership by contract is implicated.[110] The author or owner usually does not need to obtain a copyright registration from the U.S. Copyright Office to be able to enforce its rights.[111] However, obtaining a copyright registration provides for enhanced legal rights in a work, such as creating a public record and a presumption of ownership in the work.[112] Also, obtaining a registration is required for the owner to bring a lawsuit for infringement in a U.S. federal district court.[113]

A common question pertaining to copyrights that I get asked is: how do I tell the world that I am claiming copyright rights in something that I have created? The answer is simply to use the standard copyright notice on all copies of the work. For example, "© Copyright 2022, Richard Kosakowski, All Rights Reserved." This notice should be prominently placed on pages of a website, on all marketing materials such as brochures, on all artwork that rights are being claimed in, and business owners should

106. *See supra* notes 58–60 and accompanying text.

107. 17 U.S.C. § 102.

108. *Id.*

109. *Id.* § 106.

110. *Id.* § 201; *see also* U.S. COPYRIGHT OFF., WORKS MADE FOR HIRE (Sept. 2012), https://www.copyright.gov/circs/circ09.pdf [https://perma.cc/3GTU-7ZVF].

111. § 408(a).

112. U.S. COPYRIGHT OFF., COPYRIGHT BASICS 5–6 (Sept. 2021), https://www.copyright.gov/circs/circ01.pdf [https://perma.cc/UU6N-KNSW].

113. § 411.

explicitly indicate copyright rights in contracts with others for the marketing and distribution of the work. If it is then discovered that someone is selling copies of a work without permission, a demand letter can then be sent demanding that they cease and desist such illegal usage. If they fail to stop their infringing usage, then it is time to obtain a U.S. copyright registration for the work which will then enable a lawsuit to be brought for copyright infringement. Obtaining the registration is inexpensive (less than $100 for the application) and quick (about three months but can be obtained sooner in about five days by paying an extra special handling fee of $800).

G. *Exploiting IP Rights*

IP rights in the nature of patents, trade secrets, trademarks, and copyrights are intangible rights and have the attributes of personal property.[114] Thus, these rights can be sold or licensed to others.[115] Also, oftentimes these rights are bundled together, for example, patent rights are joined with related trade secrets and know-how to thereby give a purchaser or licensee an entire package of proprietary information to enable them to manufacture and sell a product embodying the innovation.

A situation I often encounter with entrepreneurs arises when they have innovated a solution to a problem, and they then want to sell or license that innovation to others having the resources to create products based on the innovation, or to utilize the innovation in their business. Typically, a company will be interested in buying or licensing someone else's innovation if the innovation will enable the company to get to market with a product faster than if the company did not possess that innovation and had to innovate a similar solution themselves, and if the purchase price or license price of that innovation is reasonable.

It also helps the entrepreneur in their efforts to find a buyer or licensee if a working prototype of the innovation has been built and tested to ensure that it works for its intended purpose, and if the entrepreneur has at least had a search of any in-force patents and any other relevant prior art performed and analyzed by a patent attorney to determine: (1) the risk of infringement of someone else's patents by the innovation, and (2) the likelihood of the entrepreneur being able to obtain one or more patents on its innovation. If the risk of patent infringement is low and if patents have been issued to the entrepreneur or have at least been filed for, then the price that third parties are willing to pay for the innovation and associated patent and trade secret rights (and any other related rights such as trademarks and copyrights) will typically increase.

114. *See, e.g.*, 35 U.S.C. § 261 ("Subject to the provisions of this title, patents shall have the attributes of personal property.").

115. *See id.* (allowing transfer of patents); 17 U.S.C. § 201 (allowing transfer of copyrights); 15 U.S.C. § 1060 (allowing transfer of trademarks).

However, oftentimes I am approached by entrepreneurs who only have a paper design of an innovation and no related IP rights, and they want to sell the entirety of their innovation outright to a third party. I tell them that this is most likely not a realistic situation and to go back and build a working prototype and obtain IP rights to thereby build up the value of their innovation to others.

H. *Enforcing IP Rights*

Once various types of IP rights are obtained by entrepreneurs in their innovations, oftentimes situations arise when the entrepreneur becomes aware that someone else is infringing those rights by making products, practicing methods, using trademarks, and/or making and distributing copies of copyrighted materials—all without the permission of the entrepreneur. The entrepreneur is then faced with the decision of trying to stop the infringing activity or letting it continue. Specifically, the entrepreneur must decide whether the harm that the infringing activity is causing to their business is or may become significant enough to warrant the time and expense in trying to stop the infringing activity. Some infringements of IP rights are less egregious than others. Also, the degree of certainty in being successful in stopping the infringing activity must be considered.

Each type of IP right is largely similar to one another in that it affords its owner the right to stop others from commercializing the protected innovation without the owner's permission.[116] Also, most of these IP rights are enforced in civil actions brought in U.S. federal district courts and not by criminal actions (although copyrights and trade secrets do come with criminal penalties as well).

For patents, an action for patent infringement can be brought if someone has a device or method that is practicing all of the structural and/or functional features called for or recited in any one or more of the claims in the issued U.S. patent.[117] The infringement of a claim in a patent may be literal in that the accused device or method performs every element as called for in the literal language of the claim.[118]

However, if the infringement is not literal, an accused device or method may still be found to be infringing under the doctrine of equivalents .[119] The doctrine protects the patent owner if the accused

116. *See Trademark, Patent, or Copyright*, U.S. PAT. AND TRADEMARK OFF., https://www.uspto.gov/trademarks/basics/trademark-patent-copyright [https://perma.cc/9ZET-NAF2].

117. *See* 35 U.S.C. § 271; *Patent Infringement: Everything You Need to Know*, UPCOUNSEL, https://www.upcounsel.com/patent-infringement (last visited Feb. 17, 2022).

118. *Patent Infringement*, O'BANION & RITCHEY, LLP, https://www.intellectual.com/content/patent-infringement [https://perma.cc/UA2F-Q6U9].

119. Graver Tank & Mfg. Co. v. Linde Air Prod. Co., 339 U.S. 605, 608–11 (1950) (describing literal infringement and the doctrine of equivalents).

device or method satisfies the "function/way/result" test. That is, the accused device or method performs substantially the same function, in substantially the same way, to achieve substantially the same result.[120] For example, if a patent claim literally calls for a nail to attach and hold two pieces of material together, and if the accused device instead uses a screw or glue, then it is likely that the accused device would be found to be infringing under the doctrine since a screw or glue performs similarly to the nail in attaching and holding the two pieces of material together.

Prior to bringing a lawsuit for patent infringement in federal court, the patent owner must take steps to compare the allegedly infringing product to the claims of its one or more valid and in-force patents to confirm that there is indeed infringement occurring.[121] This is to satisfy the federal court that the plaintiff undertook an adequate pre-filing investigation of the existence of patent infringement, as required by Rule 11 of the Federal Rules of Civil Procedure.[122]

Once the lawsuit is commenced, the defendant infringer will try to invalidate the asserted one or more patents of the plaintiff using various methods and arguments, including submitting prior art to the court to prove that the patent is invalid and, thus, never should have been issued by the USPTO in the first place.[123]

In my experience of being involved with several patent infringement lawsuits, these legal proceedings can be lengthy (several years to resolution) and expensive (millions of dollars spent on attorney fees)—especially if they go to trial and to an appeal after that. However, the majority of patent infringement lawsuits never make it to trial and instead the dispute is settled typically by the infringer agreeing to stop its infringing activity and paying some amount of money in damages to the patent owner.[124] Oftentimes, the dispute is settled prior to a lawsuit ever being filed. Thus, a patent owner bringing the threat of a patent infringement lawsuit to the infringer in a demand or notice letter is something to be strongly considered if infringement is occurring.

120. *Id.* at 608; *Patent Infringement*, *supra* note 118.

121. Esther H. Lim, *Reasonable Prefiling Investigation and the Test for Rule 11: The "I Would Have if I Could Have" Test*, FINNEGAN (July/Aug. 2006), https://www.finnegan.com/en/insights/articles/reasonable-prefiling-investigation-and-the-test-for-rule-11-the.html [https://perma.cc/D73A-RY7M]; *see also* Weintraub Tobin, *Do Your Homework Before Suing For Patent Infringement*, JDSUPRA (Aug. 2, 2019), https://www.jdsupra.com/legalnews/do-your-homework-before-suing-for-67377/ [https://perma.cc/T7FJ-7YW3]; Dennis Crouch, *Pre-Litigation Investigation of Patent Validity*, PATENTLYO (Mar. 26, 2021), https://patentlyo.com/patent/2021/03/litigation-investigation-validity.html [https://perma.cc/F38U-T5EK].

122. Fed. R. Civ. P. 11(b); *see also* Crouch, *supra* note 121.

123. 35 U.S.C. § 282(b).

124. *See* Branka Vuleta, *25 Patent Litigation Statistics—High-Profile Feuds About Intellectual Property*, LEGALJOBS (Aug. 6, 2021), https://legaljobs.io/blog/patent-litigation-statistics/ [https://perma.cc/HJ5P-6NSZ] (noting ninety-five to ninety-seven percent of lawsuits end with a settlement).

U.S. Customs and Border Protection (CBP) offers an inexpensive way for owners of valid and in-force U.S. trademark registrations and/or U.S. copyright registrations for their products to have CBP intercept, seize, and destroy counterfeit or knock-off products that are trying to enter the United States and be sold here to the detriment of the registration owner.[125] All the trademark and/or copyright registration owner need do is record its registrations with CBP for a relatively inexpensive fee per registration.[126] CBP also encourages registration owners to educate CBP personnel about the registration owner's products by providing product identification guides and by also providing in-person and webinar education to help CBP personnel identify and intercept infringing goods entering the United States from foreign countries.[127]

In addition, various online retailers such as Amazon, eBay, and Etsy provide for owners of valid U.S. trademark registrations to record those registrations with the retailer.[128] This will then allow for the easier enforcement of trademark rights on these online retailers, which is important today given the proliferation of online retailing of goods.

CONCLUSION

Obtaining IP rights and leveraging and enforcing those rights are critical to the success of any business, but especially for entrepreneurs and startups. Thus, it is of paramount importance for entrepreneurs; students in science, technology, engineering, arts, and mathematics fields; and startups to have a fundamental understanding of the various types of IP rights and how those rights are obtained, leveraged, and protected early on in their innovative journey.

125. *See generally* STOPFAKES.GOV, https://www.stopfakes.gov/welcome [https://perma.cc/H476-T6N7].

126. *See Help CBP Protect Intellectual Property Rights: How Recordation Can Help Protect Your Intellectual Property Rights*, U.S. CUSTOMS AND BORDER PROT., www.cbp.gov/trade/priority-issues/ipr/protection [https://perma.cc/K6MH-6S47].

127. *Id.*

128. *See Build and Protect Your Brand*, AMAZON, https://brandservices.amazon.com/ [https://perma.cc/T5TC-ZCFP]; *Verified Rights Owner Program*, EBAY, https://pages.ebay.com/seller-center/listing-and-marketing/verified-rights-owner-program.html#m17-1-tb1 [https://perma.cc/39HA-BTTK]; *Intellectual Property Policy*, ETSY, https://www.etsy.com/legal/ip/ [https://perma.cc/Z8SG-WPR8].