



THE CENTER FOR
INTELLECTUAL PROPERTY
UNDERSTANDING

The Center for IP Understanding

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The State of IP Education Worldwide: Seven Leading Nations

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The State of IP Education Worldwide: Seven Leading Nations

Introduction

Despite the incredible importance of intellectual property to the overall economy, both in the United States and abroad, IP education largely remains the province of law schools. Although the idea of teaching IP-related subjects at the undergraduate level has grown more popular in recent years, [there is still more work to be done towards introducing IP](#) into course curriculum.¹ Increased demand by students isn't being met by schools. Students at the collegiate level are growing more interested in IP-related subjects but this demand is unmet [due in part to a lack of commitment to developing interdisciplinary studies](#).²

The term “intellectual property” encompasses a wide range of intangible assets – including patents, copyrights, trademarks and trade secrets - which continue to prove increasingly valuable in the global economy developing at the turn of the 21st century. About a decade ago, [intangible IP assets accounted for 75 percent of the assets of publicly-listed U.S. businesses](#).³ Technology-licensing revenues in the United States have been estimated at about \$45 billion while worldwide licensing revenues have grown past \$100 billion annually.⁴ IP has only become more valuable to business in recent years. Between 2010 and 2014, [the total merchandise exports of IP-intensive industries grew from \\$775 billion up to \\$842 billion](#).⁵ In 2012, U.S. business revenue from licensing IP rights reached \$115.2 billion while exports of service-providing IP-intensive industries were \$81 billion.⁶

Industries with a heavy reliance on intellectual property aren't just adding to national gross domestic products, they're also supporting a great number of jobs. Between 2010 and 2014, IP-intensive industries added 800,000 jobs, directly accounting for a total of 27.9 million jobs.⁷ Additionally, IP-intensive industries support another 17.6 million supply chain jobs, accounting

¹ *Intellectual Property Education - In the Law School and Beyond*, Professor Ruth Soetendorp, Bournemouth Law School Centre for Intellectual Property Policy and Management, 2005 (<http://eprints.bournemouth.ac.uk/3195/1/478.pdf>)

² *Intellectual Property: Valuable to Every Discipline*, John Villansenor, *The Chronicle of Higher Education*, August 4, 2014 (<https://www.chronicle.com/article/Intellectual-Property-/147985>)

³ *The State of Intellectual Property Education Worldwide*, Shaheen E. Lakhan and Meenakshi K. Khurana, *Journal of Academic Leadership*, 2007 (http://cogprints.org/5640/1/IP_Education.pdf)

⁴ *Id.*

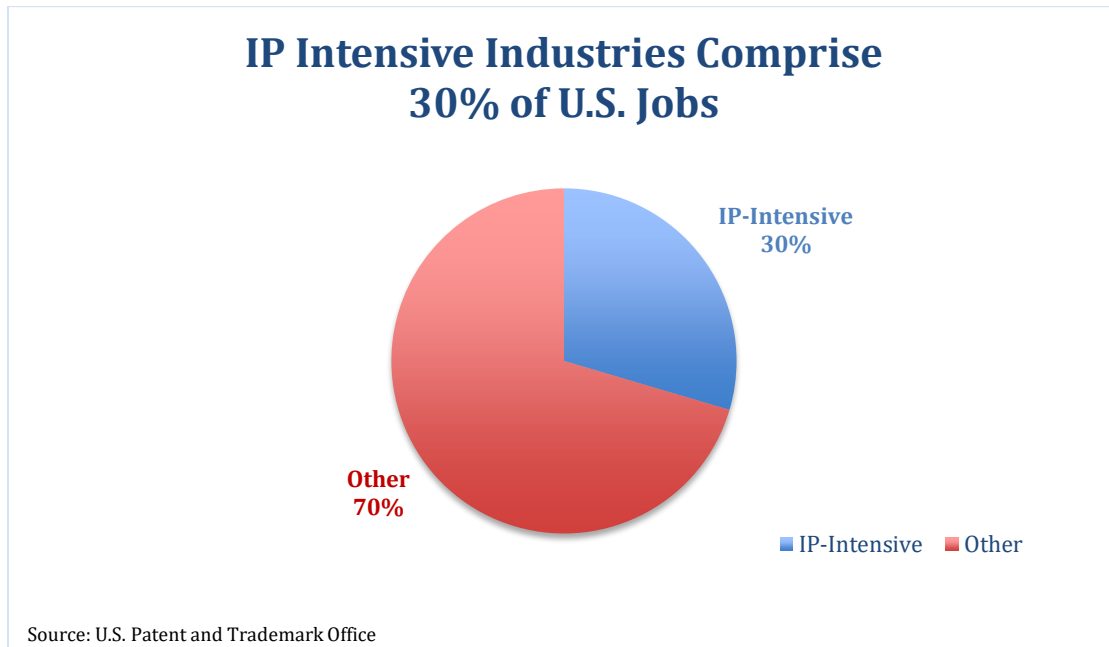
⁵ *Intellectual Property and the U.S. Economy: 2016 Update*, Economics & Statistics Administration and the U.S. Patent and Trademark Office (<https://www.uspto.gov/sites/default/files/documents/IPandtheUSEconomySept2016.pdf>)

⁶ *Id.*

⁷ *Id.*



for a total of 45.5 million jobs or 30 percent of the overall U.S. workforce.⁸ The average weekly wage for jobs in IP-intensive industries was \$1,312 in 2014, a significantly higher amount than the average \$896 weekly wage earned by jobs in non-IP-intensive industries.⁹



A lack of understanding and education regarding IP-related topics has an economic effect outside of jobs and wages, and affects attitudes towards IP from inventions, content and counterfeits. [A 2002 study on the effects of intellectual property education on piracy](#) reported that a lack of IP understanding has resulted in one-fifth of middle-schoolers in the U.S. and China believing that they have a right to obtain illegal software.¹⁰ Despite calls for the introduction of IP-related topics into educational curriculum as early as the elementary school level, intellectual property continues to have difficulty making inroads as a field of study in education programs across the board.

With this atmosphere in mind, **the Center for IP Understanding** has developed this *State of IP Education Worldwide* report to explore non-lawyer IP-related education initiatives from across the globe, including education fairs, extracurricular programs and training programs offered by public agencies. This report surveys countries which have strong intellectual property systems or innovation economies. South Korea and Sweden, for example, are respectively first- and second-overall in [the most recent innovation index compiled by Bloomberg](#).¹¹ China, the United

⁸ *Id.*

⁹ *Id.*

¹⁰ *Stop Piracy with Edification: Intellectual Property Education in School*, Shaheen Emmanuel Lakhan, Harvard University, November 2002 (<http://cogprints.org/2935/1/SchoolIPEdu.pdf>)

¹¹ *The U.S. Drops Out of the Top 10 in Innovation Ranking*, Michelle Jamrisko, Wei Lu, *Bloomberg*, January 22nd, 2018 (<https://www.bloomberg.com/news/articles/2018-01-22/south-korea-tops-global-innovation-ranking-again-as-u-s-falls>)



States, Japan and Korea [are among the top countries receiving patent applications](#).¹² Six of the seven countries surveyed [have systems of patent rights which rank among the top 15 worldwide](#).¹³ Although there is a lack of compulsory education related to intellectual property, there are education programs in multiple countries which are designed to introduce students of all ages to intellectual property or closely related science, technology, engineering and mathematics (STEM) career topics. For other audiences, such as business students, teachers and parents, there is little or no formal or informal IP education and the level of awareness and understanding appears to remain low, which can contribute to increased IP piracy. However, countries where IP education programs have been established and are available tend to have stronger national IP systems.

The United States

The [Global Intellectual Property Academy](#) (GIPA) was launched as a U.S. Department of Commerce initiative in 2005 and is headquartered at the [U.S. Patent and Trademark Office](#) in Alexandria, VA, although GIPA events are conducted all over the world. GIPA classes are geared toward officials of either intellectual property offices or government agencies responsible for IP and enforcement policies. Education programs available through GIPA focus on subject areas such as office administration, budgeting, basic examination practices as well as adherence to international standards outlined in free trade agreements or international IP treaties. Individuals who cannot attend GIPA classes can take advantage of [e-Learning modules](#) made available in five different languages. English-language e-Learning modules focus on topics including patents, copyright, trademark, trade secrets, international standards for IP enforcement as well as an introduction to the Patent Cooperation Treaty (PCT). In 2016, GIPA provided training to nearly 5,000 foreign officials from 114 countries along with 1,500 people associated with U.S. small- and medium-sized enterprises and 585 members of academic groups.

The USPTO is also involved in developing educational outreach programs geared towards improving IP and STEM education in the K-12 grades. The USPTO's [Office of Education and Outreach](#) has developed educator resources such as [the Science of Innovation series](#), a 17-part video series which looks at the development of innovations in fields such as 3D printing, virtual reality, biofuels and self-driving cars. The USPTO's education outreach office also conducts the [National Summer Teacher Institute](#), an annual week-long program that provides experiential training tools and project-based learning models to educators from elementary, middle and high schools to develop IP-related lesson strategies for their students. This office has also released [a series of collectible trading cards](#) featuring inventors in order to inspire young children to explore innovation further.

¹² *China Tops Patent, Trademark, Design Filings in 2016*, World Intellectual Property Organization, December 6th, 2017 (http://www.wipo.int/pressroom/en/articles/2017/article_0013.html)

¹³ *Create*, U.S. Chamber of Commerce IP Index Sixth Edition, Global Innovation Policy Center, February 2018 (http://www.theglobalipcenter.com/wp-content/uploads/2018/02/GIPC_IP_Index_2018.pdf)



Given the traditionally strong intellectual property rights regime which has been supported by the United States, there seems to be an unusual lack of effective education programs at undergraduate academic institutions. Until the recent development of [an intellectual property and entrepreneurship course at the University of Southern California](#), [intellectual property courses were only taught at law schools](#), reinforcing the concept among American students that IP is simply a specialized legal field of no great importance to non-lawyers. (Undergraduate and graduate business programs, too, lack compulsory or voluntary IP courses.)

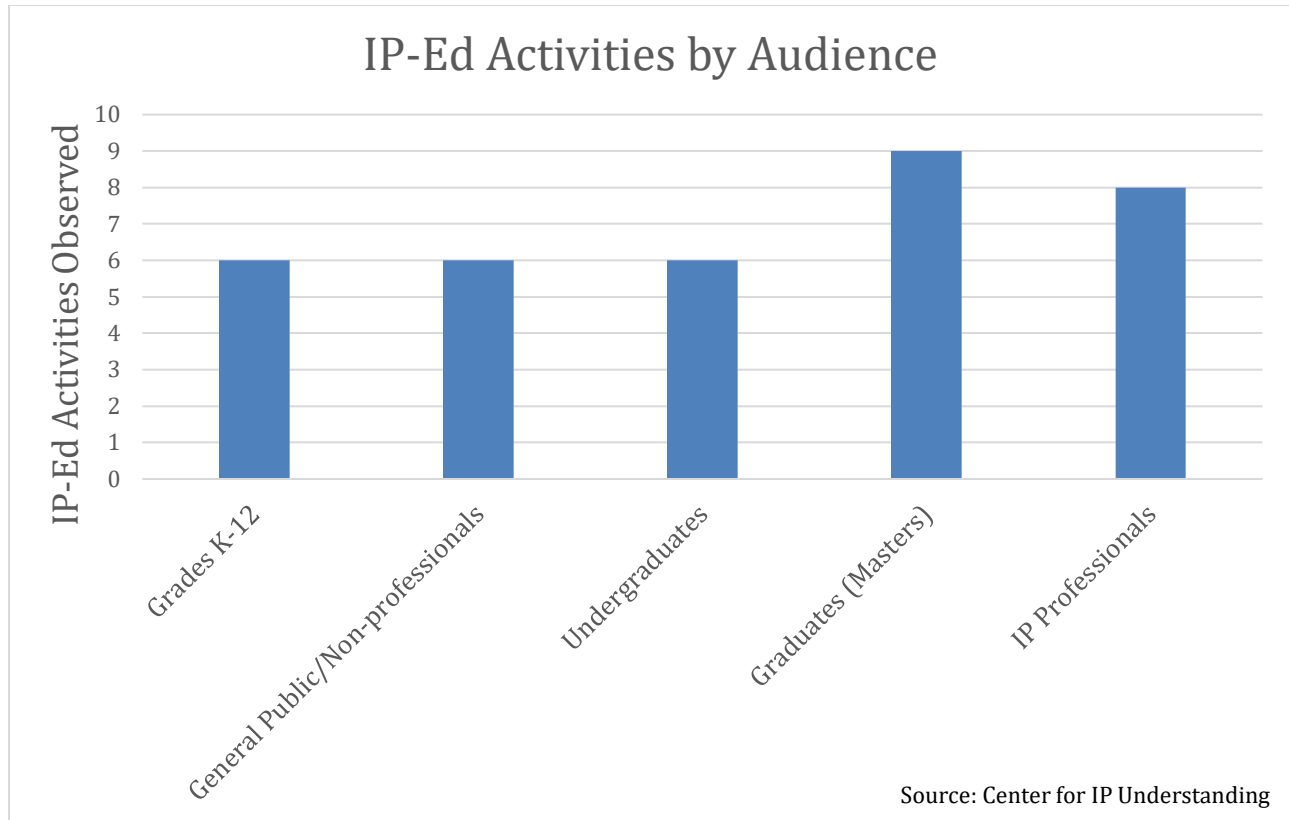
One of the major developers of the USC course in IP and entrepreneurship is [Dr. Gary Michelson](#), the owner of hundreds of patents covering devices and methods for minimally invasive spinal and orthopedic surgery. Through his [Michelson 20MM Foundation](#), Dr. Michelson has used a good deal of his private fortune to support IP education programs much like the USC entrepreneurship course as well as nonprofits and startups which use technology to improve the affordability and accessibility of education programs. One of the Michelson 20MM Foundation's education programs which is specifically geared towards IP is [the Michelson Institute for Intellectual Property](#). This IP education initiative offers [a free course on intellectual property](#) available on the Udemy online education platform ([udemy.com](#)) which is geared towards inventors, entrepreneurs and creators. The Michelson Institute for IP also makes a video series discussing patent, copyright and trademark topics available online and offers a free textbook, [The Intangible Advantage](#), available as an interactive ebook or in a PDF version. Michelson Institute for Intellectual Property partners include the Intellectual Property Owners Education Foundation, the Center for IP Understanding, USC, the USC Marshall School of Business, the Lloyd Grief Center for Entrepreneurial Studies and the National Association for Community College Entrepreneurship. Along with the Michelson Institute for IP, the Michelson 20MM Foundation also operates a [Michelson Runway](#) accelerator to improve access to post-secondary education including access to a virtual entrepreneur community featuring web-based presentations on intellectual property and other business topics.

The [Intellectual Property Owners \(IPO\) Education Foundation](#) is a nonprofit organization "devoted to educational and charitable activities designed to promote the value of intellectual property rights." In partnership with the Michelson 20MM Foundation, the has developed [lesson plan curricula for educators at middle school, high school and undergraduate levels](#) to teach basics on intellectual property to students. Lesson plans range from 30 minutes to 60 minutes and PowerPoint presentation materials and course outlines are freely available to educators on the IPO Education Foundation's website. The IPO Education Foundation also supports early education in intellectual property through an [IP Video Contest](#) which offers \$5,000 scholarship awards to students as young as 13 for creating an engaging 60-second video clip on a subject related to intellectual property. Winning entrants are also given the opportunity to tour the U.S. Capitol and meet members of Congress. In partnership with Girl Scouts of the USA, the IPO Education Foundation offers an [IP Patch](#) program which encourages Girl Scouts from grades 2 through 10 to explore science, technology, engineering and math (STEM) careers. Major sponsors for the IPO Education Foundation include Finnegan, Johnson & Johnson, General Electric, 3M, ExxonMobil, GlaxoSmithKline, Eli Lilly, Microsoft, Intel, Pfizer and P&G.



The [Global Innovation Policy Center](#) (GIPC) is a program operated by the [U.S. Chamber of Commerce](#) which champions “innovation and creativity through intellectual property standards that create jobs, save lives, advance global economic and cultural prosperity, and generate breakthrough solutions to global challenges.” The GIPC publishes IP reports such as the annual [International IP Index](#) which provides a ranking of 45 international economies in terms of intellectual property rights as well as analysis of key weaknesses and strengths for different national IP systems. The GIPC also makes online reports available on [job creation related to IP](#) as well as [the magnitude of economic loss caused by counterfeiting](#). Each year, the GIPC also plays host to the [IP Champions Gala](#), an annual event recognizing a wide range of individuals contributing to innovation and creativity including activists, entertainers, small business owners and others who have contributed to the promotion or protection of IP. The GIPC engages in domestic and international policy advocacy through the [Global Brand Council](#), a collection of dozens of global brands, Fortune 500 companies, trade organizations and associations promoting initiatives for better IP enforcement worldwide, especially among trading partners of the United States.

Trade organizations representing American companies make some intellectual property education materials available, mainly in an effort to reduce digital piracy of copyrighted content. The [Recording Industry Association of America](#) (RIAA), for example, makes some [educational materials available online for both students and teachers](#) who are seeking information on intellectual property and IP rights. For students, which the RIAA notes are some of the “most avid music fans,” the organization has published an FAQ online which discuss the effects of digital piracy on the music industry. For educators and educational institutions, the RIAA directs them to [the Music Matters US website](#) which provides a listing of legitimate and authorized music services available in the United States.



Audience	IP-Ed Activities Observed
<i>Grades K-12</i>	<ul style="list-style-type: none"> ▪ James Dyson Foundation ▪ USPTO National Summer Teacher Institute ▪ IPO Education Foundation ▪ Big Bang Fair ▪ IIPTI Annual Training Plan for K-12 ▪ SIPO/Ministry of Education
<i>General Public/ Non-professionals</i>	<ul style="list-style-type: none"> ▪ Global Innovation Policy Center (GIPC) ▪ Association of IP Law Firms in Sweden (SEPAF) ▪ Center of IP and Information Law (CIPIL) ▪ Michelson Runway ▪ SIPO IP Week ▪ CIPTC Distance Learning
<i>Undergraduates</i>	<ul style="list-style-type: none"> ▪ IP Awareness Network (IPAN) ▪ Michelson Institute for IP ▪ IP Courses at USC ▪ Recording Industry Association of America (RIAA) ▪ East China University – School of IP ▪ IP Institute Renmin University



Graduates (Masters)

IP Professionals

- Global IP Academy (GIPA)
- University of Bonn – Summer School on IP
- Uppsala University – Master Program in IP Law
- Munich IP Law Center (MIPLC)
- Osaka Institute of Technology (OIT)
- Center for IP Gothenburg
- Japan’s Strategic IP Initiative
- Peking University Law School
- IP Institute Renmin University
- GIPA e-learning
- Korean IP Office – IIPTI
- Swedish Patent and Registration Office
- Max Planck Institute for Innovation and Competition
- John Marshall Law School of Chinese IP
- WIPS
- SIPO In-house Training
- CIPTC Workshops

Source: Center for IP Understanding

The United Kingdom

Students in the United Kingdom as young as five years of age may be introduced to topics surrounding intellectual property through curriculum developed by [Cracking Ideas](#), an age-specific online IP education resource developed by the [UK Intellectual Property Office](#) with funding from the Office for Harmonization in the Internal Market (now the [European Union Intellectual Property Office](#)). Lesson plans have been developed in five key stage areas for age groups from 5 to 7 years up through 16+ years and are designed to introduce students to topics such as product design, engineering, business studies and piracy. Lessons also feature cameos by animated figures which are popular in the UK, such as “Wallace and Gromit” or “Nancy and the Meerkats.” Cracking Ideas hosts competitions such as the Nancy’s Musical Box poster design contest or the Cracking Ideas Design Competition storyboard contest.

The [Intellectual Property Awareness Network](#) (IPAN) is a nonprofit organization “committed to improving awareness and understanding of IP in the UK.” IPAN has worked with the [National Union of Students](#) to develop research that supports the expansion of intellectual property education programs at the university level as well as university IP policies which define the rights that students have in their own inventive work. IPAN also makes [a series of 20 topic briefs](#) freely available through its website on a variety of intellectual property subjects including patents, copyright, counterfeits and IP theft as well as specific innovation topics like 3D printing or plant breeding.



Established in 2004, the [Centre for Intellectual Property and Information Law](#) (CIPIL) at the [University of Cambridge](#) is dedicated to fostering the study of all aspects of IP and information law. CIPIL projects include the [Virtual Museum](#), a collection of materials which are related to key intellectual property cases dating back to the 19th century, and the [European Travaux](#), another collection including the official record of negotiations for various European directives and regulations in intellectual property law. CIPIL supports [ongoing research](#) in a number of areas related to IP including copyright in video games and unpublished works, patents in the fields of bio-sciences and computer programs as well as unfair competition related to trademarks. Online resources available through CIPIL include [policy documents](#) on European copyright rules, intellectual property rights enforcement and review of British intellectual property law. CIPIL hosts various seminars on IP and information law topics throughout the year as well as an annual one-day spring conference; [the 2018 CIPIL Spring Conference](#) will take place on March 10th and focus on intermediary liability and responsibility in digital markets across the globe.

There is no specific intellectual property focus in [The Big Bang Fair](#) but this annual event in the UK introduces young students in that country to STEM subject matter. Students are able to [explore careers in different STEM “crews”](#) including construction, film & TV, health, space, tech and travel. For instance, students exploring the “Construction Crew” discover careers such as architectural technologist or building services engineer and can interact with professionals and industry organizations in those fields. Students visiting the annual fair can learn about these occupations by visiting the Careers Cabin or attending Careers Talks in which industry professionals give an overview of their jobs. [Online resources maintained by The Big Bang Fair](#) include do-it-yourself science projects to create lava lamps, lemonade bottle pumps, a simple motor and more. The Big Bang Fair’s website also includes [teaching resources from various organizations and agencies](#) related to science and technology, including UK IPO teaching resources for students from ages 8 up to 16 from Cracking Ideas as well as a Future Innovators toolkit for teachers looking to lecture on intellectual property topics.

Although it has grown to operate in countries other than the UK, the [James Dyson Foundation](#) provides an educational curriculum in various aspects of the inventive process. Schools can request free kits like the Design Process or Engineering boxes which provides hands-on learning materials discussing both the design and engineering aspects of inventing. The foundation also provides Challenge Cards which can be downloaded for free and used to challenge students in various STEM-related subjects. Educational materials developed and distributed by the Dyson Foundation have been developed for various age ranges including [2nd through 6th grades](#), [7th through 12th grades](#) and [university](#). The foundation also runs [the James Dyson Award competition](#), an international design contest which offers up to \$40,000 as a cash award, along with an additional \$6,000 to pay tuition at the winner’s university of choice.

Germany

Since 1966, the [Max Planck Institute for Innovation and Competition](#) has long been involved in the development of German intellectual property law in spite of various name changes over the years. [Activity reports released by this institution](#) detail various operations including seminars,



professional association collaborations, scientific projects and other advisory work completed by the innovation institute. The Max Planck Institute for Innovation and Competition supports interdisciplinary research including topics such as antitrust and tax law. This particular Max Planck Institute, one of 90 institutions in the [Max Planck Society](#) network, [contributes to a range of research projects](#) in subjects such as intellectual property and competition law as well as innovation and entrepreneurship research. The Max Planck Institute for Innovation receives support from the Munich Intellectual Property Law Center along with other institutions of the Max Planck Society.

Graduate and postgraduate students in Germany seeking additional study in IP-related subjects can apply to the [Summer School on Intellectual Property](#) hosted by the [University of Bonn](#). The IP summer school program includes eight course modules on subjects including patents, copyright, trademarks, unfair competition and industrial design. Courses are supplemented with guest lectures from IP professionals and excursions for field study of intellectual property topics. Young professionals from any field of study are also capable of enrolling in this program and the University of Bonn makes available a limited number of grants for fee exemption. Students completing the summer school program are given a certificate of attendance which can earn students up to six European Credit Transfer System (ECTS) credits to be used towards the completion of a degree.

Founded in 2003, the [Munich Intellectual Property Law Center](#) (MIPLC) is a center for research and education in intellectual property topics which offers a one-year Master of Law (LL.M.) program in international IP and competition law. Students at the MIPLC have access to the IP library of the Max Planck Institute for Innovation and Competition, one of the founding partners of the MIPLC. MIPLC attendees come from a variety of educational and professional backgrounds including law, sciences, engineering and journalism. The MIPLC has developed [collaborative relationships with a variety of international institutions](#) including the European Patent Office, German Federal Patent Court, European Intellectual Property Institutes Network, Supreme Court of Japan, WIPO Worldwide Academy and the State Intellectual Property Office of the People's Republic of China. Other [founding partners](#) providing resources to the MIPLC's LL.M. program include the University of Augsburg, the Technical University of Munich and George Washington University.

Japan

For more than a decade, the Japanese federal government has acknowledged the importance of leveraging high quality intellectual property for the creation of wealth among its citizens. [A July 2003 policy statement on the country's strategic IP program](#) discussed the development of a "knowledge-based economy" in Japan and the establishment of Japan as "an intellectual property-based nation." Such efforts were aimed at overcoming a long recession experienced by that nation's economy up to that time, including the "lost decade" of the 1990s which contributed to an unprecedented economic slump for Japan since its economy industrialized through the 20th century. Japan's strategic IP initiative outlined a thorough education program to be implemented at all levels of schooling which would train teachers to introduce students to



IP-related topics as early as elementary school. [An update to Japan's strategic IP initiative released May 2004](#) indicated that 68 law schools had been establishing course subjects on intellectual property laws and other measures.

One of the state-sponsored resources in intellectual property provided by the Japanese government to citizens is [an online copy of a textbook in intellectual property rights](#). The online textbook, available through the official website of the [Japan Patent Office](#), includes chapters on that nation's Intellectual Property Act, an outline of Japanese patent law, comparisons with the patent regimes of the United States and Europe, international treaties, IP systems in other Asian countries, IP valuation and more, spanning a total of 65 chapters. Textbook chapters span all major topics of IP including utility patents, design patents, copyright, trademarks and general IP.

A Master's-level degree in intellectual property is available to those attending the [Graduate School of Intellectual Property](#) at the [Osaka Institute of Technology](#) (OIT). The post-secondary educational program accepts students with undergraduate degrees in fields such as law, economics, engineering or administration, as well as working professionals with backgrounds in similar fields. Coursework towards the Master of IP program covers subject matter in four major areas including innovation, business, legal and global IP. International students with an interest in taking coursework from the OIT's Graduate School of Intellectual Property may take advantage of distance learning programs including Internet-based lectures; most lectures are in Japanese but some English-language lectures are available. Completion of the Master of IP program affords students some exemptions if they take the examination to become a National Patent Attorney. The Graduate School of Intellectual Property also partners with [the Center for Advanced Study and Research on IP at the University of Washington](#) to send select students to the summer IP institute offered at that institution.

Sweden

Education programs available in Sweden tend to be geared towards professionals which are already working in the intellectual property space or those who are almost prepared to enter the field. The [Center for Intellectual Property](#) (CIP), situated in Gothenburg, supports Master's-level education programs in intellectual capital management at academic institutions including the Chalmers School of Entrepreneurship and the Sahlgrenska School of Innovation and Entrepreneurship. CIP also delivers interdisciplinary Master's-level courses in subjects including innovation strategies, innovation engineering, brand management and applied intellectual capital management; courses are taught at Chalmers University of Technology, University of Gothenburg and Norwegian University of Science and Technology. Other education programs offered by CIP include the Business of Intellectual Property (BIP) program consisting of two three-day modules and assignment to a home company where program participants can apply course content on practical issues. Students participating in graduate education programs at CIP can also participate in more than 40 spring and summer internship opportunities at tech startups, university tech transfer offices, non-governmental organizations and other entities providing hands-on business experiences. Along with the education programs, CIP also maintains [research programs](#) to which staff at affiliated universities contribute in the areas of



knowledge-based business, public research organizations, open innovation and intellectual property law.

Each year, a few [training programs](#) lasting a few weeks are offered through the [Swedish Patent and Registration Office](#) (PRV) at the PRV's Stockholm facilities are open to intellectual property experts from around the world, especially those from countries with developing innovation economies. Programs being offered by the PRV focus on subject areas including intellectual property and genetic resources, industrial property and technological capacity enhancement, as well as intellectual property for least developed countries. [These programs are operated in collaboration](#) with the [World Intellectual Property Organization](#) (WIPO) and the [Swedish International Development Cooperation Agency](#) (SIDA). Compared to most other intellectual property education programs from around the world, the PRV's programs are largely aimed at foreign professionals with a focus on improving IP regimes in foreign countries rather than domestically.

A greater focus on improving the intellectual property knowledge of those working with Sweden's IP regime is offered by the [Association of Intellectual Property Law Firms in Sweden](#) (SEPAF). SEPAF compiles statistics from the PRV and other databases to create publicly-available [reports](#) on the levels of domestic and international filings of patent applications, trademark applications and design applications being filed at the PRV. In recent years, SEPAF has also published an [Innovation Index](#) designed to provide indications of the development of Swedish business activity as compared to international activity from an IP perspective. SEPAF's official website indicates that the organization works with the [Swedish Intellectual Property Attorney's Association](#) towards the development of [IP rights education and training programs](#).

[Uppsala University's Master Program in Intellectual Property Law](#) bills itself as the only Master's-level education program in Sweden which explores IP regulations. The program focuses on international and European Union (EU) IP law, particularly in the areas of copyright, trademarks, patents and designs. Courses offered through Uppsala's program cover subject matter such as competition law, international treaties, contracting IP, copyright protection in a digital society as well as patent law and pharmaceuticals; courses are offered in English. Applicants must have a bachelor's degree and 15 credits in intellectual property law. Students who successfully complete this program are granted a Master of Laws LL.M. in Legal Science.

Korea

Among the many activities of the [Korean Intellectual Property Office](#) (KIPO) include the operation of the [International Intellectual Property Training Institute](#) (IIPTI), an agency responsible for developing IP education in South Korea in cooperation with WIPO and the [Korea International Cooperation Agency](#) (KOICA). Special training courses which are also available to KIPO staff, including examiners and administrative judges, provide education in civil law and proceedings, patent litigation and [Patent Cooperation Treaty](#) (PCT) examination. The IIPTI's [Annual Training Plan](#) includes courses which are offered to general public IP practitioners in subjects including industrial property rights, developing IP leadership at small- and medium-



sized entities (SMEs) and prior art searches. The training plan also offers courses to students from elementary through high school levels as well as creative invention courses for teachers and principals looking to introduce IP-related subjects into their curriculum. Similar to Sweden's PRV, Korea's IIPTI also conducts IP education programs for IP-related officials in the private and public sectors of less developed countries. Remote distance learners can take advantage of the IIPTI's [e-learning IP cyber education center](#) which offers education services for self-initiated study in many of the course subjects offered at the IIPTI.

IP education in Korea is also available through [WIPS](#), Korea's first online worldwide patent information service provider and the only authorized prior art search institute designated by KIPO for patent, trademark and design searches. Since 2007, WIPS has operated the [IP Education Center](#) to provide IP training and patent strategy courses to attorneys, experts and other IP workers. Customized courses with a 1-to-3 ratio of trainers to trainees are available at beginner, intermediate and advanced levels. These group training programs focus on subjects such as problem-solving skills and practical business implications in a curriculum developed by IP specialists and patent attorneys. Free training services available at WIPS' IP Education Center provides education in patent search and analysis as well as the familiarization of patent information with trainees. Courses are instructed by patent lawyers and consulting experts employed by WIPS as well as an outside instructors pool including about 200 IP experts.

The [Korea Invention Promotion Association](#) (KIPA) is another South Korean IP organization supporting education programs in related fields. Along with KIPO, WIPO and the [Korea Advanced Institute of Science and Technology](#) (KAIST), KIPA is a joint organizer of the [Advanced International Certificate Course](#) (AICC) training program in business and IP. The months-long AICC program consists of an online learning component lasting six weeks, followed by an IP essay test to select outstanding participants and an offline learning component hosted at facilities in Seoul for three days with travel and expenses being taken care of for the participants. [2016 saw the 7th-annual AICC course program take place in Korea](#) with three sessions taking place between April and August of that year. That year, the program gave 40 to 50 students from developing countries were invited to attend the offline training in Seoul for face-to-face training in IP asset management and advanced topics. KIPA supports intellectual property education available through the [IP Academy](#), an online e-learning platform founded in 2002 with course contents geared towards university students, teachers, business professionals and public IP officials. Further, KIPA contributes to efforts that [improve IP awareness at universities](#) with an emphasis on providing courses in general training, private license and other subjects to students majoring in science, engineering, management or design programs.

China

China, a communist nation which has adhered to socialist governmental activities throughout the 20th century, has been later than other nations to establish training centers or law degree programs focused on intellectual property. In June 1994, 12 years after the first intellectual property law was drafted in China, [the Permanent Mission of the People's Republic of China to](#)



[the United Nations](#) issued [a declaration on intellectual property protection in China](#), noting that the country has been late to develop an IP protection system while acknowledging that such a system would be important for promoting science and technology while improving the national economy. The first IP law program in China [was established at the Peking University Law School in 1995](#). One year later, [the first intellectual property rights education center was established in China in 1996](#). In recent years, IP education and training in Chinese universities and colleges has increased, [numbering at least 22 IP schools and more than 60 IP research centers](#) within the country.

A great deal of IP training and publicity is taken on by China's [State Intellectual Property Office](#) (SIPO), the national agency granting patents to inventors. Such activities are detailed in [annual reports which have been issued by SIPO](#) every year going back to 1999. The [2016 SIPO Annual Report](#) discussed various [IP training and research activities](#) pursued that year by the agency. These included [an IP Week held in late April of that year](#) in collaboration with other Chinese state agencies to host 70 major events including forums and lectures on the theme of stepping up IP protection and use. SIPO's annual report cited incomplete statistics that indicated nearly 20,000 IP-related news reports being issued during IP Week alone, contributing to the general public's awareness of such issues. In-house training activities for SIPO staff included foreign language training for more than 630 staff members as well as enhanced training on specialized expertise for patent examiners across 13 examiner practice bases. SIPO worked with China's [Ministry of Education](#) to launch IP education projects at 30 primary and middle schools across 25 provinces nationwide. The 2016 annual report also cites various research activities organized by SIPO, including 30 regular research projects, 10 youth research projects and 10 promotional projects on patent analysis.

SIPO reported that, in 2016, more than 780,000 people received IP-related training at the [China Intellectual Property Training Center](#) (CIPTC), a year-over-year increase of 178 percent in trainees. CIPTC offered 144 distance education branch centers in 2016, including 11 new centers, to train 770,000 people; the CIPTC website indicates that distance learning programs focus on aspects of Chinese and U.S. patent law. In October 2016, [the CIPTC launched distance learning programs](#) in cooperation with the [WIPO Academy](#) to offer WIPO courses in the Chinese language. The CIPTC also held 84 face-to-face training workshop sessions and 29 international training workshops for foreign IP professionals.

Intellectual property rights perspectives in Chinese and European Law are taught in courses offered at Beijing's [Summer Law Institute](#), which has been organized each year since 2006. [The 13th edition of the Executive Education Program](#) being held during the summer of 2018 includes courses in Chinese IP law as well as different approaches to IP rights in China, America and Europe. Participants include students and professionals from a range of countries with developed innovation economies and those who are still developing those systems. [The two curricula offered at the Summer Law Institute](#) each involve about 60 hours of attendance in courses as well as lectures given by guest speakers. Seminars in IP and competition policy law are designed to increase both teacher-student interactions as well as interactions between students from different foreign countries.

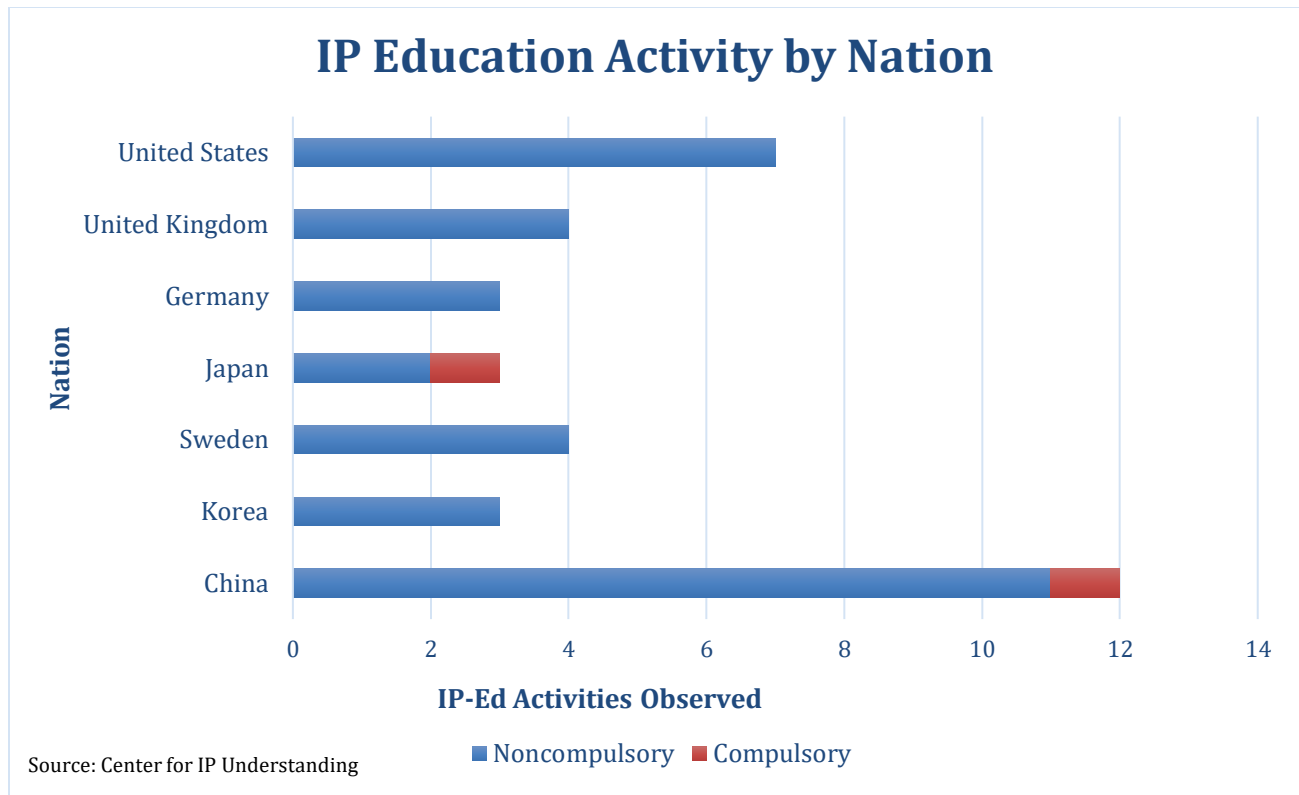


[The Intellectual Property Institute of the Renmin University of China](#) may not have been formally established until November 2009, but Professor Guo Shoukang, one of the institute's faculty members, has been recruiting postgraduates majoring in intellectual property to Renmin University since the early 1980s. The institute focuses on two main research areas: copyright law; and industrial property law. Courses taught at the institute cover topics such as patent law, trademark law, fair trade law and international treaties on industrial property. Since it was established, the Renmin University's IP Institute has graduated more than 700 Bachelor of Law degree holders and more than 450 Master of Law degree holders.

Every year since 2011, the [John Marshall Law School of Chinese Intellectual Property](#) has held the [China IP Summer Program](#) at facilities in Shanghai and Beijing; this program is geared towards Chinese students who are interested in learning precepts of the U.S. IP system. The 2018 version of this specialized China IP course, the only such summer program receiving approval from the [American Bar Association](#) (ABA), includes visits to China's Copyright Office and SIPO as well as mock intellectual property trials for course credit. Mock trials during the 2018 program will focus on damages determinations in patent infringement cases. Education, housing and dining facilities for this program are housed at SIPO's Chinese IP Training Center and the program does offer limited internship/externship opportunities with Chinese law firms directly before or after the training program is conducted.

Another Chinese IP training program offered by an education institution located outside of China is the [Intellectual Property Law and Knowledge Management](#) training program headquartered in Macau and operated by [Maastricht University](#), a public university in the Netherlands. The program is designed for lawyers, IP professionals with an economic or policy background as well as Master's-level IP students seeking post-academic skill enhancement. Coursework in this training program focuses on international treaties like the Paris and Berne conventions as well as IP treaties implemented by WIPO and the [World Trade Organization](#) (WTO). The training program is offered in three parts including an IP law school followed by a seminar and a professional IP update, the entire program lasts for about one week. The university's Macau program receives cooperation from both the [Institute of European Studies of Macao](#) and the [Institute of Globalization and International Regulation in Maastricht](#).

Since 2003, the [School of Intellectual Property](#) at the [East China University of Political Science and Law](#) has offered undergraduate programs in both intellectual property law and IP management. The IP school at East China University has faculty members with law experience in intellectual property, business or commercial areas as well as faculty with engineering experience. The program is designed to focus on fields of study in science and law to teach students basic IP strategies which have become increasingly useful since China's entry into the WTO.



Conclusion

Even as the value of IP increases by billions of dollars each year, the vast majority of IP-related training programs are largely voluntary in nature. This suggests that most countries feel no great impetus yet to introduce intellectual property as a field of study despite the importance of STEM subject matter and the costs of growing IP infringement through digital piracy and other means. Among the countries surveyed, only Japan seemed to have a national plan for introducing a thorough education plan related to intellectual property in direct response to the economic pressures being felt by that country. For the most part, there seems to be little awareness at the national government level on the impact of IP-related education on both IP infringement and the value of IP development.

However, there is no great dearth of intellectual property education across the globe. Along with Japan's IP education initiative, programs in the U.S. and the UK are also geared towards students in elementary through secondary grade levels. Students who are lucky enough to be taught by educators with an interest in intellectual property may be able to benefit from these programs, but it's far from a guarantee that most young students will be able to take advantage of available IP training resources. It's possible that these programs are underpublicized or underutilized, limiting their ability to reach their total target audience.

The reasons why IP education is so *ad hoc* are likely complex. It's possible that audiences do not understand the value of IP or simply do not care about intellectual property rights. Another possibility is that current IP education programs are not properly designed to generate interest



in the program and its material content. More effective leadership from those in IP-related fields could help promote the importance of intellectual property education

Of the post-secondary education programs that are geared towards law students and IP professionals, it appears as though most have been designed in a way that addresses the interdisciplinary nature of intellectual property. Such programs may have a focus on patents, trademarks and copyright while also covering business, technology and other legal topics. In at least three of the seven countries surveyed, IP education programs exist which are geared towards educating IP professionals from countries with underdeveloped IP regimes; these programs tended to be run within the patent offices of those countries.

While IP education programs are largely voluntary, countries where more of these programs are available tend to exhibit stronger national IP systems. The United States and the United Kingdom are respectively ranked first and second by the Chamber of Commerce for strength of their national IP programs and these two countries seem to be the home of the most IP education and training programs.

By contrast, China, where established IP education programs are much newer than the other countries in this survey, was 25th overall in the Chamber of Commerce IP index. However, it appears that the availability of IP training and education in China has been ramping up quickly and that nation has consistently improved its score in each edition of the Chamber of Commerce IP index. The U.S. and the UK are also the two countries where IP education curriculum for young students have been developed, showing the importance of reaching children with IP-related subject matter at a young age. Japan, the only other country where IP education initiatives for young students are readily apparent, has a top-10 ranking for its IP system. The findings of this survey strongly suggest a link between the availability of IP education and the strength of a nation's IP system. Given the growing value of IP and increasing infringement levels, more efforts are required to teach the general public about the importance of intellectual property rights.

This report was prepared for the Center for Intellectual Property Understanding (CIPU) by Steven Brachmann, a journalist focusing on intellectual property matters. CIPU is an independent, non-profit organization devoted to increasing IP awareness and its impact on peoples' lives. For more information, visit www.understandingip.org.