

Improving Understanding of Intellectual Property Commercialization to High School and Vocational School Teachers and Students

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Abstract

Understanding how to leverage intellectual property for economic gain has become increasingly urgent, as the 21st century, a digital technology era, has made creativity and innovation a highly potential source of capital. Based on the issues outlined above, it is crucial to implement activities to enhance understanding of intellectual property and its use to generate income for the community. This community service activity will target high school and vocational school students and teachers in Semarang City. The current curriculum accommodates and is relevant to intellectual property. Furthermore, various scientific competitions have been held, resulting in diverse creative and innovative outcomes. These activities, designed to enhance teachers' and students' understanding of intellectual property and its commercialization, are delivered through presentations by the team and resource persons. To find out the results and potential impact of the activity, after the presentation of the material, a questions and answers session was held with questions regarding the material that had been given. The planned activity was attended by participants consisting of high school/vocational high school teachers and high school/vocational high school students in Semarang City/Regency totalling 100 people. The activity was held on 18 July 2024, on the 3rd Floor of the UNNES LPPM Building. The activity began after being opened by the Secretary of UNNES LPPM. As speakers at the activity were the Head of the Central Java Provincial Education and Culture Office, the Head of the Human Resources Division of the Central Java Provincial Education and Culture Office, the Head of the Vocational High School Section of the Central Java Region I Education Office Branch, and the Chairperson of the Center for Innovation, IP, and Commercialization. The four speakers delivered material guided by a moderator from the community service team.

Keywords: intellectual property, commercialisation, innovation, creativity

INTRODUCTION

Intellectual Property (IP) can be defined as the result of the exploration and exploitation of human thought that results in creativity and innovation that can generate financial benefits¹. In Indonesia, the IP regime began in the 1990s, namely since the enactment of Law Number 7 of 1994 concerning the Ratification of the Agreement Establishing the World Trade Organization. One of its considerations stated that the enactment was an effort to implement economic development. Providing IP protection in Indonesia in the 1990s faced quite a heavy challenge, one of which was because the Indonesian nation was a communal nation while the IP regime focused on the teachings of individualism. Indonesia was obliged to provide IP protection through a series of legislative packages as a consequence of signing the ratification of the Agreement Establishing the World Trade Organization in 1994, one of whose mandates was to provide IP protection. Many parties, including academics, disagreed with this government policy because the Indonesian nation

¹ World Trade Organization. What Is Intellectual Property? (n.d) dapat diakses melalui <https://www.wipo.int/about-ip/en/>

was a communal nation while the basis for thinking about IP protection was based on individualism. However, as time goes by, particularly in the current era of digital technology, views on IP ownership have shifted along with the shift in exclusivity of IP ownership. In principle, IP is divided into two groups: copyright and industrial property rights (including patents, trademarks, and trade secrets).

IP is believed to be a key capital element that can generate financial benefits. In Indonesia, especially in recent years, education about IP has become increasingly widespread, both to the general public, universities, school students and teachers, and entrepreneurs (Micro and Small Enterprises). Public IP education is provided, for example, through online mass media² and government websites³. An increasing number of academics are also providing education directly in schools by conducting community service activities, such as those carried out by Muhammad Amirulloh and team⁴, Irawaty and team⁵, Dewi Sulistianingsih and team⁶, and Firya Oktaviarni and team⁷. Even campuses also provide education to their academic community, such as that implemented at UGM⁸, UB⁹, and Unilak¹⁰.

WIPO defines IP not only as the results of exploration and exploitation of the human mind, but also includes the words "... used in commerce," meaning its commercial use. This commercialization of IP is actually in line with the statement in one of the considerations for the enactment of Law Number 7 of 1994, as previously stated, namely as an effort to implement economic development. This was conveyed by the Director General of IP in an IP education activity regarding patents¹¹. One of the Indonesian government's policies regarding the use of IP for entrepreneurs in recent years is the use of IP as credit collateral¹².

Currently, IP is considered an intangible asset that must be used commercially. At the international level, discussions on how to treat IP as an intangible asset have been going on for decades, for example regarding how to assess (value) IP as proposed by Flignor and Orozco¹³, how to maximize IP as proposed by

² Vanya Karunia Mulia Putri. Hak Kekayaan Intelektual (HKI): Pengertian dan Tujuannya (2022) dapat diakses melalui <https://www.kompas.com/skola/read/2022/03/18/100000769/hak-kekayaan-intelektual-hki-pengertian-dan-tujuannya>

³ Panrb (2023) Edukasi Pencegahan Pelanggaran Hak Kekayaan Intelektual, Untuk Tingkatkan Pemahaman Masyarakat dan Pelaku Usaha <https://sippn.menpan.go.id/berita/47421/kanwil-kementerian-hukum-dan-ham-ri-sulawesi-utara/edukasi-pencegahan-pelanggaran-hak-kekayaan-intelektual-untuk-tingkatkan-pemahaman-masyarakat-dan-pelaku-usaha>

Kominfo (2021) Kominfo Ajak Masyarakat Tingkatkan Kesadaran Hak Kekayaan Intelektual https://www.kominfo.go.id/content/detail/34179/kominfo-ajak-masyarakat-tingkatkan-kesadaran-hak-kekayaan-intelektual/0/berita_satker

⁴ Muhammad Amirulloh, Helitha Novianty Muchtar, Kilkoda Agus Saleh. (2022). Peningkatan Pemahaman Hak Kekayaan Intelektual Bagi Guru dan Siswa SMKN 4 Kuningan Jawa Barat. Dapat diakses melalui <http://jurnal.unpad.ac.id/kunawula/index>. Hal. 229-237

⁵ Irawaty, Irawaty, Rini Fidiyani, Eko Mukminto, Widhiyanto Widhiyanto, and Holy Latifah Hanum. 2023. "Increasing Understanding of the Urgency of Trade Secrets for Business to Gen Z at SMAN 1 Semarang". Jurnal Pengabdian Hukum Indonesia (Indonesian Journal of Legal Community Engagement) JPHI 6 (2), 289-304. <https://doi.org/10.15294/jphi.v6i2.75083>.

⁶ Dewi Sulistianingsih (2018) Menumbuhkembangkan Penguasaan Kekayaan Intelektual bagi Masyarakat di Karimunjawa Kabupaten Jepara <http://lib.unnes.ac.id/44202/1/document%20%282%29%20-%20AGUS%20BUDIARDJO.pdf>

⁷ Firya O dkk (2021) Sosialisasi Pemahaman Hukum Tentang Pentingnya HKI Atas Hasil Karya Guru dan Siswa di SMK Muhammadiyah Singkut

⁸ UGM (2023) Pelindungan Kekayaan Intelektual Hasil Penelitian Bidang Sosial Humaniora <https://penelitian.ugm.ac.id/2023/08/10/pelindungan-kekayaan-intelektual-hasil-penelitian-bidang-sosial-humaniora/>

⁹ UB (2023). FILKOM Gelar Sosialisasi Hak Kekayaan Intelektual Bagi Dosen <https://prasetya.ub.ac.id/filkom-ub-selenggarakan-sosialisasi-bagi-dosen-untuk-memahami-lebih-lanjut-tentang-hak-kekayaan-intelektual-hki/>

¹⁰ Unilak (2023) Tingkatkan Pengetahuan Tentang Hak Kekayaan Intelektual (HKI), FH Unilak Selenggarakan Kuliah Umum HKI <https://unilak.ac.id/berita/detail/tingkatkan-pengetahuan-tentang-hak-kekayaan-intelektual-hki-fh-unilak-selenggarakan-kuliah-umum-hki>

¹¹ Unida (2021) Penguatan Pemahaman KI dengan Litbang, Pelaku Usaha, dan Perguruan Tinggi Oleh DJKI <https://www.unida.ac.id/bisnis/artikel/penguatan-pemahaman-ki-dengan-litbang-pelaku-usaha-dan-perguruan-tinggi-oleh-djki.html>

¹² ojk (2022) Prospek Hak Kekayaan Intelektual (HKI) sebagai Jaminan Utang <https://www.ojk.go.id/ojk-institute/id/capacitybuilding/upcoming/1110/prospek-hak-kekayaan-intelektual-hki-sebagai-jaminan-utang>

¹³ Paul Flignor dan David Orozco. Intangible Asset & Intellectual Property Valuation: A Multidisciplinary Perspective (2006) dapat diakses melalui http://www.labrate.ru/discus/messages/6730/IP_Valuation-8256.pdf

Ian Ellis¹⁴. In recent years, discussions have also been ongoing regarding the role of IP in the economy, for example IP as an investment as proposed by Jaax and Miroudot¹⁵, how to measure IP as an asset¹⁶, conducting IP assessments¹⁷ and as proposed by Trequattrini et al.¹⁸. Before being used in industry, IP should be recorded and/or registered first. The purpose of recording and/or registration is to provide protection and legal certainty for IP objects and subjects. IP commercialization can be in the form of selling innovative products, or through licensing agreements that include know-how, skill-how, and franchises.

Nationally, high school students and their equivalents are a generation that has already received exposure to financial literacy. They are a generation prepared for independence, as one of the skills required for 21st-century learners is entrepreneurial ability¹⁹. In fact, according to data from the Central Statistics Agency, 39% of Indonesian-owned company owners are high school graduates. Based on this data, it is crucial to equip high school students with a valuable and increasingly important corporate asset: trade secrets.

High school and vocational school teachers and students in Semarang City and Semarang Regency were selected as participants in this community service activity due to the increasing number of activities that foster student creativity and innovation, for example through various scientific research competitions. The results of these scientific research projects have the potential to be protected through intellectual property rights (IP), such as patents. However, many students and teachers still lack an understanding of the concept of IP or the procedures for registering IP. Furthermore, they lack an understanding of the commercialization of these innovations.

The selected partner for this activity is the Central Java Education Office Branch I. The Education Office Branch I is located on Jl. Gatot Subroto, Tarabudaya Office Complex, Ungaran, Semarang Regency. The background to this partner selection is that Branch I oversee Senior High Schools (SMA) and vocational high schools (SMK) in Semarang City and Semarang Regency, making it possible to direct senior high schools (SMA) and vocational high schools (SMK) that are more urgently needed to receive education on improving IP understanding and commercializing innovation.

METHOD

The planned educational activity on intellectual property and its economic benefits was delivered through presentations by invited speakers. Following the presentations, a question-and-answer session and discussion were held. Additionally, to assist participants in registering their IP, mentoring will be provided via Zoom at a mutually agreed-upon time. To gauge participants' understanding of the material presented, a post-test will be administered after the offline presentation.

The community service team consist of three lecturers, one administrative staff member, and three students, each with the following responsibilities:

- a. The lecturers with legal backgrounds will develop materials and outputs on intellectual property regulations and their exploitation for economic benefit.
- b. The lecturers with chemical engineering backgrounds will share their experiences regarding innovations they have developed, the IP registration process, and how to commercialize their IP.
- c. The administrative staff will be responsible for various required documents.
- d. The student team has the responsibility to assist in the implementation and output in the form of a video of the implementation of the community service activities.

¹⁴ Ian Ellis. Maximizing Intellectual Property and Intangible Assets (2009) dapat diakses melalui <https://www.issuelab.org/resources/3304/3304.pdf>

¹⁵ Jaax, A., Miroudot, S. Capturing value in GVCs through intangible assets: The role of the trade–investment–intellectual property nexus. *J Int Bus Policy* 4, 433–452 (2021). <https://doi.org/10.1057/s42214-020-00086-2>

¹⁶ Kristof van Criekingen, Carter Bloch, dan Carita Eklund. Measuring Intangible Assets—A Review of the State of the Art (2021) <https://doi.org/10.1111/joes.12475>[18] Tim Karius. Intellectual Property and Intangible Assets: Alternative Valuation and Financing Approaches for the Knowledge Economy in Luxemburg (2016) dapat diakses melalui <http://hdl.handle.net/10419/126183>

¹⁷ Tim Karius. Intellectual Property and Intangible Assets: Alternative Valuation and Financing Approaches for the Knowledge Economy in Luxemburg (2016) dapat diakses melalui <http://hdl.handle.net/10419/126183>

¹⁸ Trequattrini, R., Lardo, A., Cuzzo, B. and Manfredi, S. (2022), "Intangible assets management and digital transformation: evidence from intellectual property rights-intensive industries", *Meditari Accountancy Research*, Vol. 30 No. 4, pp. 989-1006. <https://doi.org/10.1108/MEDAR-03-2021-1216>

¹⁹ Faulinda Ely Nastiti dan Aghni Rizqi Ni'mal 'Abdu (2020). Kesiapan Pendidikan Indonesia Menghadapi Era Society 5.0. *Edcomtech*, hal. 61-66.

RESULTS & DISCUSSION

The 4.0 era is marked by technological advancements affecting almost all levels of society, including the internet. The internet allows anyone who wants to easily showcase their creativity to the world. This creativity is legally protected through the declarative principle of copyright. This flow of creativity via the internet seems to occur without the territorial boundaries of national sovereignty. Anyone can upload their creative work to the internet, even children. Children are legally considered immature. However, in this context, this means they are already capable of performing actions that may have legal consequences.

Copyright is a form of Intellectual Property protection. In fact, copyright is not a new form of protection in the Indonesian archipelago. Long before Indonesia's independence, copyright protection in 1912 in the archipelago was regulated by the colonial government, as was patent protection, which was implemented two years earlier, in 1910. However, because this intellectual property protection is a Western product whose social and philosophical life differs from that of Indonesian society, it is not easy for us to accept this intellectual property protection. The Indonesian people are a communal nation that has values that if they own something, they will be happy to give it to others. This differs from intellectual property protection, which provides incentives (in the form of rights) to those who discover or create something through their creativity or efforts. If their discovery or work is to be used by others, they can ask the prospective user to provide economic compensation. This concept is a concept generally applied by individualistic societies.

In its development, intellectual property protection not only provides protection for creative works, patents, and trademarks but also for confidential information with commercial value (trade secrets), designs for integrated circuit layouts, geographical indications, and industrial designs. In Indonesia, all of this intellectual property is legally protected because Indonesia is a signatory to the General Agreement on Tariffs and Trade (GATT). One of the mandates for countries that sign this agreement is to implement a package of laws and regulations protecting intellectual property.

With current technological developments and business conditions, it is crucial for everyone, including high school and vocational schoolteachers and students, to understand how intellectual property laws and regulations in Indonesia protect their inventions and creative output. Therefore, the expectations are: 1) that participants understand how to obtain legal protection for their inventions or work; 2) that they avoid violating the law by using the inventions and/or work of others without following the procedures stipulated in Indonesian laws and regulations; and 3) that they understand how to commercialize their innovations.

As an effort to increase understanding of IP, its commercialization, and IP registration procedures, a team of lecturers from Semarang State University (UNNES) collaborated with the UNNES Institute for Research and Community Service (LPPM) to conduct a community service activity on the subject. The activity was held on July 18, 2024, on the 3rd floor of the UNNES LPPM Building. Participants consisted of 100 high school (SMA/SMK) teachers and high school (SMA/SMK) students in Semarang City/Regency.

The event began after an opening by Prof. Dr. Sucihatningsih Dian Wisika Prajanti, M.Si. She is the Secretary of the UNNES Institute of Public Relations (LPPM). Speakers included the Head of the Central Java Provincial Education and Culture Office, the Head of the Human Resources Division of the Central Java Provincial Education and Culture Office, the Head of the Vocational High School Section of the Central Java Region I Education Office Branch, and the Head of the Center for Innovation, Intellectual Property, and Commercialization. The four speakers delivered presentations, moderated by a member of the community service team.

Based on responses from all the participants via the questionnaires, knowledge transferred by all the speakers was taken well. It could be seen also from the responses when the participants listened and followed all the instructions from the speakers. The interactions between participants and speakers were constructive as well as joyfull. All participants joined the activity until it was closed with quiz.

CONCLUSION

The participating high school and vocational high school teachers and students in Semarang City and Regency were highly enthusiastic about receiving the dissemination materials on intellectual property rights (KI), the recording process, and the utilization of KI. The teachers and students present were teachers with a proven track record of understanding KI. The students were high achievers and likely already possess KI. In addition to the relevant materials, the resource persons, the responsiveness of the committee, and the facilities provided contributed to the smooth implementation of the activities. Therefore, it can be concluded that the dissemination activities ran smoothly and met their objectives and expectations.

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DECLARATION OF CONFLICTING INTERESTS

The authors state that there is no conflict of interest in the publication of this article.

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