World Intellectual Property Organization

Topic A: Cybersecurity and the Theft of Intellectual Property Online

"In an increasingly interconnected and networked world, it has become critically important to safeguard our vital systems and infrastructures against attack by cybercriminals, while instilling confidence in online transactions in order to promote trade, commerce, banking, telemedicine, e-government and a host of other e-applications. As this depends on the security practices of each and every networked country, business and citizen, we need to develop a global culture of cybersecurity."[1]
-Kofi Annan, Former United Nations Secretary-General

In recent years, digital globalization has grown exponentially, connecting millions through information communication technologies (ICTs). The growing opportunities for borderless exchange are typically beneficial. Increased proliferation of ICTs, however, also directly correlates with increased rates of cybercrime.[2] The United Nations Office on Drugs and Crime (UNODC) predicts that by the year 2020, the number of devices able to connect to the internet will outnumber humans by six to one.[3] This hyper-connectivity will ultimately lead to higher rates of crime online, and will likely link conventional crime to the electronic world.[4] Due to the global nature of ICTs, it is difficult to prescribe a national jurisdiction to cybercrime.[5] The international community must coordinate and cooperate in order to sufficiently address cybercrime in relation to intellectual property.

Background:

According to the International Telecommunication Union (ITU), intellectual property rights are "legal rights that protect creations and/or inventions resulting from intellectual activity in the industrial, scientific, literary, or artistic fields."[6] Intellectual property rights cover a multitude of areas from art to the Olympic Rings to work on microorganisms.[7] These rights usually give the creator exclusive use of their creation for a specified period of time.

---

[1] "In Message for World Information Society Day, Secretary-General Calls for International Countermeasures to Enhance Cybersecurity," United Nations, April 26, 2006, http://www.un.org/press/en/2006/sgsm10433.doc.htm.
[2] International Telecommunication Union, *Understanding Cybercrime: Phenomena, Challenges, and Legal Response*, September 2012, http://www.itu.int/ITU-D/cyb/cybersecurity/docs/Cybercrime legislation EV6.pdf.
[3] "Comprehensive Study on Cybercrime," United Nations Office on Drugs and Crime, February 2013, http://www.unodc.org/documents/organized-crime/UNODC_CCPCJ_EG.4_2013/CYBERCRIME_STUDY_210213.pdf.
[4] Ibid.
[5] Ibid.
[6] "Intellectual Property Rights (IPRs)," International Telecommunication Union, accessed on May 22, 2017, http://www.itu.int/en/ITU-T/ipr/Pages/default.aspx.
[7] "Nairobi Treaty on the Protection of the Olympic Symbol," World Intellectual Property Organization, Last modified 2015, http://www.wipo.int/treaties/en/ip/nairobi/; "Budapest Treaty on the International recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure," World Intellectual Property Organization, Last modified 2017, http://www.wipo.int/treaties/en/registration/budapest/index.html

Defining cybercrime can be difficult, as it is highly dependent on the context.[8] The scope of computer-related acts of personal, financial, or intellectual gain or harm is so broad that, according to the UNODC, it is difficult to aggregate them into one definite and encompassing term.[9] Cybercrime can affect all forms of online property, which makes it a concern of all industries and governments.[10] Though it can be hard to define cybercrime, the prevalence of its impact is irrefutable. Threats to cybersecurity have created a trillion dollar business in lost intellectual property through counterfeit and pirated materials.[11] Identifying the scope of cybercrime is a vast and complicated process. Scale, intent, purpose, and jurisdiction must all be considered when trying to identify, mitigate, and protect against cybercrime.[12] Due to the rapid growth of technology, the international community is still in the early stages of addressing the impact of cybercrime on global enterprises and rights holders.

Intellectual property theft causes billions of dollars in financial losses for rights holders and legitimate businesses around the world.[13] Due to the widespread nature of this criminal enterprise, theft of intellectual property also undermines innovation and creativity through discouraging copyright. It also poses risks to consumer health and safety by flooding markets with counterfeit pharmaceutical products. These acts help fund transnational organized crime networks by exploiting financial gain through counterfeit products.[14] Aside from the direct effects of intellectual property theft, a number of peripheral issues also arise.[15] These include exploitation of personal identification and financial information, loss of commercial market advantages, minimized profitability of products or services, and the collapse of enterprise due to counterfeit products.[16] It also causes victims extensive financial costs after the fact. Between legal fees, cybersecurity investigations, lost contracts, and public relations costs, companies and governments are retroactively affected by intellectual property theft long after the incident occurs.[17]

In 2011, the Economic and Social Council, in conjunction with the United Nations Department of Economic and Social Affairs and the ITU held the Special Event on Cybersecurity and

---

[8] "Comprehensive Study on Cybercrime," United Nations Office on Drugs and Crime, February 2013, http://www.unodc.org/documents/organized-crime/UNODC_CCPCJ_EG.4_2013/CYBERCRIME_STUDY_210213.pdf

[9] Ibid.

[10] Ibid.

[11] Pamela Passman, "How to Protect Intellectual Property: from Fair Trade to Legal Trade," *Foreign Affairs*, February 27 2013, https://www.foreignaffairs.com/articles/2013-02-27/how-protect-intellectual-property

[12] International Telecommunication Union, *Understanding Cybercrime: A Guide for Developing Countries*, April 2009, https://www.itu.int/ITU-D/cyb/cybersecurity/docs/itu-understanding-cybercrime-guide.pdf.

[13] Ellen Nakashima and Andrea Peterson, "Report: Cybercrime and espionage costs $445 billion annually," *The Washington Post*, June 9 2014, https://www.washingtonpost.com/world/national-security/report-cybercrime-and-espionage-costs-445-billion-annually/2014/06/08/8995291c-ecce-11e3-9f5c-9075d5508f0a_story.html?utm_term=.2d356b0ec666.

[14] "Comprehensive Study on Cybercrime," United Nations Office on Drugs and Crime.

[15] John Gelinne, J. Donald Fancher, and Emily Mossburg, "The hidden costs of an IP breach: Cyber theft and the loss of intellectual property," *Deloitte Review* 19 (2016), https://dupress.deloitte.com/dup-us-en/deloitte-review/issue-19/loss-of-intellectual-property-ip-breach.html

[16] Ibid.

[17] Ibid.

Development.[18] This panel discussion had multiple goals, including building awareness of cybercrime at the international policy level, identifying best practices in order to build a culture of cybersecurity, and exploring options for a global response to cybercrime. Cybercrime is multifaceted and the panel on cybersecurity acknowledged the importance of collaboration between Member States, the private sector, civil society, and law enforcement in order to create a comprehensive approach to the issue.[19]

Key documents

The cornerstone document regarding intellectual property rights are the World Intellectual Property Organization's (WIPO) *Copyright Treaty* (*WCT*). The first is that the authors of a work, performers, and producers of a recording shall enjoy the right to store their works in digital form. The second principle deals with the owner's right to disseminate work digitally to the public across the internet. The third is to protect these digital works against illegal copying, downloading, or sale through effective legal remedies. WIPO's *Performances and Phonograms Treaty* also serves as an example of how to write an intellectual property document having to do with a new medium and how to handle the rights of beneficiaries of digital media.[20]

The United Nations Group of Governmental Experts on Developments in the Field of Information and Telecommunications (GGE) is a working group mandated by the United Nations that has helped to develop the global cybersecurity agenda and introduced the notion that international law applies in digital contexts.[21] Each meeting concludes with the creation of a consensus report, which have been praised for their diverse viewpoints, recommendations, and coverage of controversial subjects.[22] Each report contains recommendations made by the group regarding confidence-building measures, capacity-building efforts, and infrastructure protection.[23] While membership to the GGE is relatively small, there has been significant progress within the group of building international norms regarding cybercrime and cyber security.[24]

The World Summit on the Information Society (WSIS), a summit headed by the ITU, was created in order to promote equitable access to the benefits of ICTs, including e-commerce, e-governance, e-health, education, sustainable development, diversity, and environmental protection.[25] The outcome documents from WSIS' first and second phase, the *Geneva Declaration of Principles* and *Geneva Plan of Action* of 2003 and the *Tunis Commitment* and *Tunis Agenda for the Information*

---

[18] "Cybersecurity: A global issue demanding a global approach," United Nations Department of Economic and Social Affairs, December 12, 2011, http://www.un.org/en/development/desa/news/ecosoc/cybersecurity-demands-global-approach.html.

[19] Ibid.

[20] "Summary of the WIPO Performances and Phonograms Treaty (WPPT)," World Intellectual Property Organization, April 14 2017, http://www.wipo.int/treaties/en/ip/wppt/summary_wppt.html.

[21] "UN GGE," Geneva Internet Platform, June 23 3017, https://dig.watch/processes/ungge.

[22] Elaine Korzak, "The 2015 GGE Report: What Next for Norms in Cyberspace?" *Lawfare* September 23 2015, https://www.lawfareblog.com/2015-gge-report-what-next-norms-cyberspace.

[23] Ibid.

[24] Ibid.

[25] "What is the Information Society?" The International Telecommunications Union, July 15, 2017, http://www.itu.int/net/wsis/basic/faqs_answer.asp?lang=en&faq_id=102.

Society of 2005, respectfully, focus heavily on development, capacity-building, and transparency and confidence-building measures to improve access to both ICTs and cybersecurity.[26] The documents originating in Geneva are foundational documents that lay out expectations, issues, and goals for the international community to turn their attention towards.[27] The Tunis documents are generally more actionable, as they give specific plans to execute the commitments laid out within the *Geneva Declaration of Principles and Plan of Action*.[28]

A useful regional document on cybercrime and its prevention is the Council of Europe's *Convention on Cybercrime*. This is the first international treaty that is centered around cybercrimes. It specifically deals with infringement of copyright, computer related fraud, and violations of network security.[29] This convention's main objective is to pursue a universal crime prevention policy aimed at protection against cybercrime, especially by adopting appropriate legislation and fostering international cooperation.[30]

Current Issues:

The international system currently has many tools with which to combat cybercrime, but have very few documents and instruments to guide their actions. The existing international framework regarding cybercrime in relation to intellectual property laws currently lays within the wider scope of cybersecurity. The International Multilateral Partnership Against Cyber Threats (IMPACT) is a partner of the ITU and is the largest cybersecurity alliance of its kind. It is a communication platform used to share best practices in cybersecurity.[31] IMPACT and the ITU work to coordinate resources of government, academia, industry leaders and individuals in order to ensure cybersecurity across the globe.[32] The ITU has tasked IMPACT to provide Member States with access to expertise, facilities, and resources to effectively address cyber threats.[33] It also assists UN agencies in protecting their ICT infrastructure.[34]

Challenges of promoting cybersecurity

---

[26] World Summit on the Information Society, *Geneva Plan of Action*, WSIS-03/GENEVA/DOC/5-E, (December 12, 2003), http://www.itu.int/net/wsis/docs/geneva/official/poa.html; World Summit on the Information Society, *Geneva Declaration of Principles* WSIS-03/GENEVA/DOC/4-E, (12 December 2003), http://www.itu.int/net/wsis/docs/geneva/official/dop.html; World Summit on the Information Society, *Tunis Commitment* WSIS-05/TUNIS/DOC/7-E, (November 18 2005), http://www.itu.int/net/wsis/docs2/tunis/off/7.html; World Summit on the Information Society, *Tunis Agenda for the Information Society* WSIS-05/TUNIS/DOC/6(Rev. 1)-E, http://www.itu.int/net/wsis/docs2/tunis/off/6rev1.html.
[27] World Summit on the Information Society, *Geneva Plan of Action*; World Summit on the Information Society, *Geneva Declaration of Principles*.
[28] World Summit on the Information Society, *Tunis Commitment*; World Summit on the Information Society, *Tunis Agenda for the Information Society*.
[29] Council of Europe, *Convention on Cybercrime* 23.XI.2001, (2001), https://www.coe.int/en/web/conventions/full-list/-/conventions/rms/0900001680081561.
[30] Ibid.
[31] "Mission & Vision," International Multilateral Partnership Against Cyber Threats, last modified 14 July 2017, http://www.impact-alliance.org/aboutus/mission-&-vision.html
[32] Ibid.
[33] Ibid.
[34] Ibid.

Due to the nature of cybersecurity, there are many challenges facing the international community in addressing cybercrime in relation to intellectual property rights. There are certain challenges that the international community as a whole must address, and challenges that are faced by Member States on an individual level. When a cybercrime occurs, it is nearly impossible to measure the extent to which it has occurred.[35] This is due to a lack of reliable information and a lack of systems in place to gather such data.[36] The transnational aspect of this topic also creates difficulties for investigating such crimes.

For developing countries, there are enormous economic disparities that hinder their ability to keep pace with their industrialized counterparts.[37] Developing nations often do not have the capacity to combat cybercrime.[38] As there are few detection mechanisms in developing countries, these States can become "safe havens" for cyber criminals.[39] This problem is exacerbated due to a lack of partnership and cooperation between developed and developing countries. In order to assist in addressing the challenges facing the international community, the ITU has made a guide for developing countries, entitled *Understanding Cybercrime: A Guide for Developing Countries.*[40]

There are some national and multilateral solutions to such challenges, including legislation, strengthening law enforcement, capacity building, and training.[41] The implementation of such policies, however, cannot be enforced without sufficient crime prevention and criminal justice systems in place, as well as the human capital, financial, and technical resources to combat cybercrime.[42] The ITU provides support to Member States requesting assistance in areas such as access to ICTs and assistance in developing stronger cybersecurity.[43] Each case is handled individually and starts with an assessment of the current ICT status within the country.[44] The ITU can then provide a tailored roadmap in order for that Member State to reach its ICT goals. These roadmaps customize capacity building strategies and assist with legislation that can be used to strengthen cybersecurity.[45]

Partnerships and Action to Combat Cybercrime

This topic has seen a large portion of work happening within the private sector and academia. In general, private sector organizations tend to view intellectual property-related cybercrime as a greater threat than Member States do.[46] There is also a large movement within academia to not

---

[35] "Comprehensive Study on Cybercrime," United Nations Office on Drugs and Crime
[36] Ibid.
[37] Ibid.
[38] Ibid.
[39] Ibid.
[40] International Telecommunication Union, *Understanding Cybercrime: A Guide for Developing Countries.*
[41] Ibid.
[42] Ibid.
[43] "Key Areas of Action," International Telecommunication Union, July 14 2017, http://www.itu.int/en/action/Pages/default.aspx.
[44] Ibid.
[45] Ibid.
[46] "Comprehensive Study on Cybercrime," United Nations Office on Drugs and Crime

only understand the trends of cybercrime, but to develop effective technologies to combat such offenses. There are also non-profit organizations working to combat cybercrime, such as the Information Technology-Information Sharing and Analysis Center, which works to strengthen cybersecurity for corporations through building collaboration, information sharing, and incident response.[47] This not only assists the private sector in avoiding intellectual property theft, but enables different parties to develop and share best practices, thereby avoiding further exploitation of all parties, public or private, in the future. Public Private Partnerships also play a key role in developing cybersecurity tactics.[48] These partnerships are essential in promoting cybersecurity and development, especially within developing countries.[49] Private enterprises often have the capacity and technology to more effectively combat cybercrime while also promoting advantages within the host countries, such as economic development and developing human capital.[50]

The International Police Organization (INTERPOL) considers cybercrime against intellectual property to be an issue of trafficking. It considers counterfeiting, piracy, and smuggling for tax evasion to be trafficking in illicit goods. INTERPOL will therefore use all of its anti-trafficking resources to identify, disrupt, and dismantle these operations. INTERPOL's main actions against intellectual property cybercrime is supporting regional and global operations, capacity building and training, raising awareness, and providing legal assistance to Member States upon request.

Future Outlook:

There have been multiple discussions on the international level regarding the development of an international convention regarding cybersecurity. This treaty would, ideally, seek to harmonize national laws on cybercrimes such as copyright infringement, fraud, and breaches of network security. The GGE has also recommended the creation of a successor group in order to facilitate the creation of binding treaties and further recommendations.[51] The treaty would also work to promote and strengthen measures to combat cybercrime more efficiently and effectively than in years past. However, given the complex nature of cybercrime and ICTs, such a treaty would likely be complex and require careful thought and consideration. The promotion, facilitation, and support of technical assistance would also strengthen such actions, ensuring that all Member States have the resources necessary to mitigate the impact of cybercrime on the protection of intellectual property.

---

[47] "The Information Technology – Information Sharing and Analysis Center," IT-ISAC, Last modified 16 July 2017, https://www.it-isac.org/.

[48] World Economic Forum, *Recommendations for Public-Private Partnership against Cybercrime*, January 2016, http://www3.weforum.org/docs/WEF_Cybercrime_Principles.pdf

[49] Ibid.

[50] Ibid.

[51] Korzak, "The 2015 GGE Report: What Next for Norms in Cyberspace?"

Focus Questions:

1. What is your Member State's current capacity regarding cybersecurity?
2. What type of support, if any, does your Member State require in order to address this issue?
3. In what ways might cybersecurity attacks on protected IP impact your Member State's social and economic landscape?
4. Does your Member State have ample access to ICTs, or is there much room for development and capacity building?
5. If a treaty on cybersecurity were to be adopted, what are your Member State's priorities?

Bibliography

Chernukhin, Ernest. *Cybercrime: New Threat and Global Response*. January 2011.
   http://unodc.org/documents/treaties/organized_crime/EGM_cybercrime_2011/Presentatio
   ns/Russia_1_cybercrime_EGMJan2011.pdf.

Council of Europe. *Convention on Cybercrime* 23.XI.2001. (2001).
   https://www.coe.int/en/web/conventions/full-list/-/conventions/rms/0900001680081561.

Department of State of the United States of America. "Cybercrime and Intellectual Property
   Crime." Accessed on May 22, 2017.
   https://www.state.gov/j/inl/focus/combatting/cybercrime/.

Gelinne, John, J. Donald Fancher, and Emily Mossburg. "The hidden costs of an IP breach:
   Cyber theft and the loss of intellectual property." *Deloitte Review* 19 (2016).
   https://dupress.deloitte.com/dup-us-en/deloitte-review/issue-19/loss-of-intellectual-
   property-ip-breach.html.

Harmonization of ICT Policies in Sub-Saharan Africa. *Computer Crime and Cybercrime:
   Southern African Development Community (SADC) Model Law*. (2013).
   https://www.itu.int/en/ITU-
   D/Cybersecurity/Documents/SADC%20Model%20Law%20Cybercrime.pdf.

International Multilateral Partnership Against Cyber Threats. "Mission & Vision." Accessed
   April 14 2017. http://www.impact-alliance.org/aboutus/mission-&-vision.html.

International Police Organization. "Trafficking in illicit goods and counterfeiting."
   May 13, 2017. https://www.interpol.int/Crime-areas/Trafficking-in-illicit-goods-and-
   counterfeiting/Trafficking-in-illicit-goods-and-counterfeiting.

International Telecommunication Union. "About International Telecommunication Union
   (ITU)." Accessed on June 7, 2017. http://www.itu.int/en/about/Pages/default.aspx.

International Telecommunication Union. "Intellectual property rights in Today's digital
   economy." Accessed on June 7, 2017.
   http://www.itu.int/net/itunews/issues/2011/07/38.aspx.

International Telecommunication Union. "Intellectual Property Rights (IPRs)." Accessed on
   June 7, 2017. http://www.itu.int/en/ITU-T/ipr/Pages/default.aspx.

International Telecommunication Union. "Legislation." Accessed on June 7, 2017.
   http://www.itu.int/en/ITU-D/Cybersecurity/Pages/Legal-Measures.aspx.

International Telecommunication Union. *Understanding Cybercrime: A Guide for Developing*

Countries. (April 2009). https://www.itu.int/ITU-D/cyb/cybersecurity/docs/itu-understanding-cybercrime-guide.pdf.

International Telecommunication Union. *Understanding Cybercrime: Phenomena, Challenges, and Legal Response*. September 2012. http://www.itu.int/ITU-D/cyb/cybersecurity/docs/Cybercrime legislation EV6.pdf.

Korzak, Elaine. "The 2015 GGE Report: What Next for Norms in Cyberspace?" *Lawfare.* September 23, 2015. https://www.lawfareblog.com/2015-gge-report-what-next-norms-cyberspace.

"Mission & Vision." International Multilateral Partnership Against Cyber Threats. July 14, 2017. http://www.impact-alliance.org/aboutus/mission-&-vision.html.

Nakashima, Ellen et. al. "Report: Cybercrime and espionage costs $445 billion annually." *The Washington Post*. June 9, 2014. https://www.washingtonpost.com/world/national-security/report-cybercrime-and-espionage-costs-445-billion-annually/2014/06/08/8995291c-ecce-11e3-9f5c-9075d5508f0a_story.html?utm_term=.2d356b0ec666.

Passman, Pamela. "How to Protect Intellectual Property: from Fair Trade to Legal Trade." *Foreign Affairs*. February 27, 2013. https://www.foreignaffairs.com/articles/2013-02-27/how-protect-intellectual-property.

Raghu Santhanam, M. Sethumadhavan, Mohit Virendra. *Cyber Security, Cyber Crime and Cyber Forensics: Applications and Perspectives*. Hershey Pennsylvania, Idea Group Inc. 2011.

"The Information Technology – Information Sharing and Analysis Center." IT-ISAC. July 16, 2017. https://www.it-isac.org/.

"UN GGE." Geneva Internet Platform. June 23, 3017. https://dig.watch/processes/ungge.

United Nations. "In Message for World Information Society Day, Secretary-General Calls for International Countermeasures to Enhance Cybersecurity." April 26, 2006. http://www.un.org/press/en/2006/sgsm10433.doc.htm.

United Nations Economic and Social Council. "Special Event on Cybersecurity and Development." Accessed on June 8, 2017. http://www.un.org/ecosoc/cybersecurity.

United Nations Department of Economic and Social Affairs. "Cybersecurity: A global issue demanding a global approach." December 12, 2011.

http://www.un.org/en/development/desa/news/ecosoc/cybersecurity-demands-global-approach.html.

United Nations Office on Drugs and Crime. *Comprehensive Study on Cybercrime*. (February 2013). http://www.unodc.org/documents/organized-crime/UNODC_CCPCJ_EG.4_2013/CYBERCRIME_STUDY_210213.pdf.

United Nations System Chief Executives Board for Coordination. "Action on cybercrime and cyber security." May 3, 2013. https://www.unsceb.org/content/action-cybercrime-and-cyber-security.

"What is the Information Society?" The International Telecommunications Union. July 15 2017. http://www.itu.int/net/wsis/basic/faqs_answer.asp?lang=en&faq_id=102.

World Economic Forum. *Recommendations for Public-Private Partnership against Cybercrime*. January 2016. http://www3.weforum.org/docs/WEF_Cybercrime_Principles.pdf.

World Intellectual Property Organization. *Agreement between the United Nations and the World Intellectual Property Organization*. December 17, 1974. http://www.wipo.int/treaties/en/text.jsp?file_id=305623.

World Intellectual Property Organization. "Budapest Treaty on the International Recognition of the Deposit of microorganisms for the Purposes of patent Procedure." May 1, 2017. http://www.wipo.int/treaties/en/registration/budapest/index.html.

World Intellectual Property Organization. "Nairobi Treaty on the Protection of the Olympic Symbol." December 16, 2015. http://www.wipo.int/treaties/en/ip/nairobi/.

World Intellectual Property Organization. "Standing Committee on Copyright and Related Rights (SCCR)." Accessed on 20 May 2017. http://www.wipo.int/policy/en/sccr.

World Intellectual Property Organization. "Summary of the WIPO Performances and Phonograms Treaty." Accessed April 14, 2017. http://www.wipo.int/treaties/en/ip/wppt/summary_wppt.html.

World Intellectual Property Organization. *WIPO Copyright Treaty*. (December 20, 1996). http://www.wipo.int/treaties/en/text.jsp?file_id=295166.

World Summit on the Information Society. *Geneva Declaration of Principles* WSIS-03/GENEVA/DOC/4-E. (12 December 2003). http://www.itu.int/net/wsis/docs/geneva/official/dop.html.

World Summit on the Information Society. *Geneva Plan of Action*. WSIS-03/GENEVA/DOC/5-E. (December 12, 2003) http://www.itu.int/net/wsis/docs/geneva/official/poa.html.

World Summit on the Information Society. *Tunis Agenda for the Information Society* WSIS-05/TUNIS/DOC/6(Rev. 1)-E. http://www.itu.int/net/wsis/docs2/tunis/off/6rev1.html.

World Summit on the Information Society. *Tunis Commitment* WSIS-05/TUNIS/DOC/7-E. (November 18, 2005). http://www.itu.int/net/wsis/docs2/tunis/off/7.html.