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EXPERIENCES WITH COMPLEMENTING ONGOING ENFORCEMENT MEASURES IN THE REPUBLIC OF KOREA

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ABSTRACT

In 2013, the piracy market in the Republic of Korea had a volume of 2.41 billion distributed works, the value of which was USD 372.8 million. Piracy online was seven times as high as offline. In addition, the economic loss that copyright holders suffer is greater with online than offline piracy because infringement is much easier and faster through an online platform.

The Copyright Protection Center (CPC) has been delegated by the Ministry of Culture, Sports and Tourism (MCST) to perform various enforcement activities against illegally copied works, including the disposal of illegally copied works. Based on this mandate, the CPC represses online and offline illegal copying. One way to do so is through the Illegal Copyrights Obstruction Program (ICOP). ICOP was developed in order to automatically monitor 24/7 online piracy and to respond to copyright violations that have diversified with digital technology.

In the area of industrial property rights, the Korean Intellectual Property Office (KIPO) responds to the physical, financial, and economic harm caused by the widespread dissemination of counterfeit goods by redoubling its efforts to create a national infrastructure that promotes genuine innovation and curbs counterfeiting. Currently, KIPO is devoting the majority of its

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[*] The views expressed in this document are those of the author and not necessarily those of the Secretariat or of the Member States of WIPO.

efforts to promoting global IP awareness, restricting online transactions of counterfeit goods, and improving national laws and regulations in order to afford a higher degree of IPR protection, with plans to expand upon these endeavors well into the future.

I.   COPYRIGHT AND RELATED RIGHTS

A.   ONLINE AND OFFLINE PIRACY MARKETS

1.   In 2013, the volume of works pirated through online channels amounted to 2.1655 billion works while for offline, it was 300.86 million. As such, the volume of online piracy was seven times that of offline piracy. However, the turnover generated on the online piracy market was USD 55.4 million, while that of the offline market was USD 317.4 million. This discrepancy can be explained by the fact that a protected work may be reproduced online at very low costs whereas its offline reproduction onto CDs, DVDs or other carriers causes various costs – such as production costs, distribution costs, margin and others.

2.   The economic loss that copyright holders suffer, in particular if one takes into account opportunity costs, will be greater with online than piracy because infringement is much easier and faster through online platforms (as is also evidenced by the much higher volume of illegal online copies compared to offline copies).
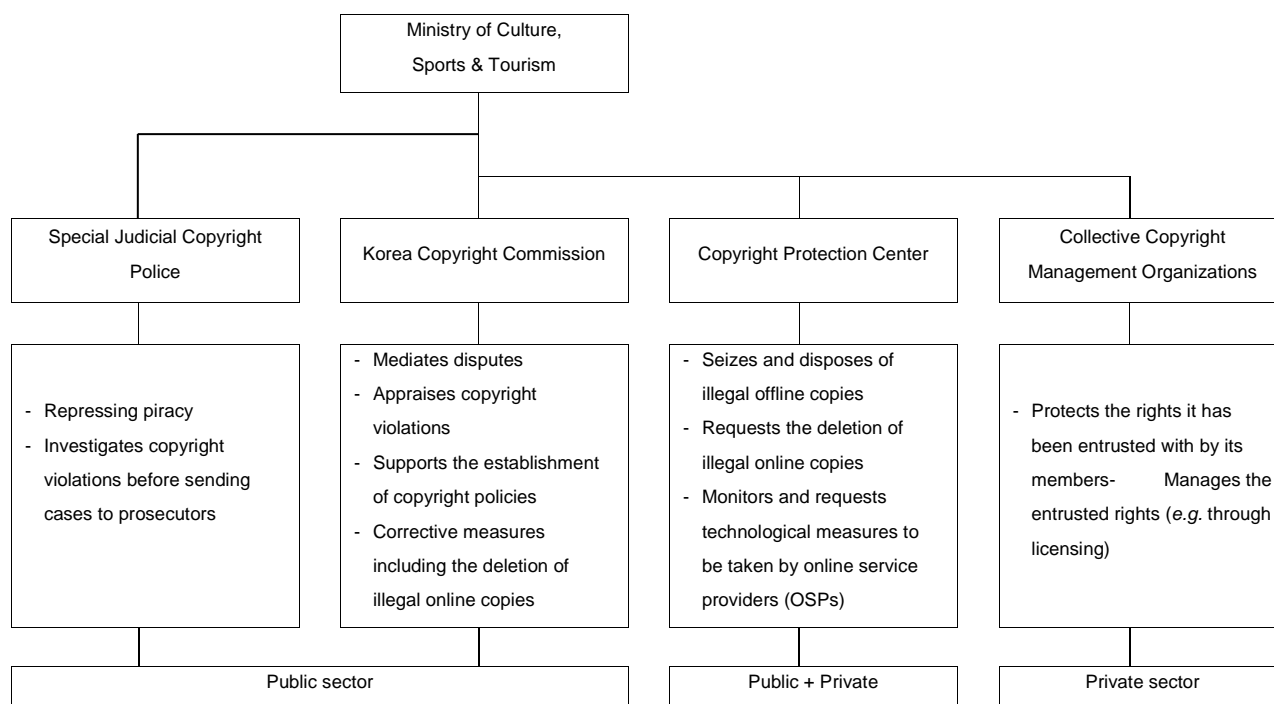
B.   COPYRIGHT PROTECTION SYSTEM

3.   As can be seen on the diagram below, the copyright protection system of the Republic of Korea can largely be divided into a sector led and supervised by the Ministry of Culture, Sports and Tourism (MCST), a sector led entirely by the private sector and a sector of collaboration between the two.

4.   In the public sector, the MCST is responsible for copyright policy and incorporates conducts the Special Judicial Police, which restrains and investigates the illegal use, copying and distribution of copyrighted works both on and offline. The Korea Copyright Commission (KCC), by implementing the policy and the program developed by the MCST, performs a variety of different tasks including collecting and analyzing digital forensic evidence and supporting repressive action against pirated software.

5.   In the private sector, right holders, either directly or through a collective management organization, issues licenses for their copyrighted works and where the works have been used without legitimate permission, the right holder may seek civil or criminal remedies.

6.   An example of collaboration between the government and the private sector would be the Copyright Protection Center (CPC) of the Korea Federation of Copyright Organizations (KOFOCO). The CPC was established by the private sector in 2005. The Copyright Act of the Republic of Korea delegated various enforcement activities against illegally copied works from the MCST to the CPC, including the disposal of illegal physical copies and the authority to request the removal of illegal digital copies. The CPC, based on that mandate, represses online and offline illegal copying. One of the ways in which it does so is through the Illegal Copyrights Obstruction Program (ICOP).

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                        │   Ministry of Culture,   │
                        │    Sports & Tourism      │
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| Special Judicial Copyright Police	Korea Copyright Commission	Copyright Protection Center	Collective Copyright Management Organizations
- Repressing piracy - Investigates copyright violations before sending cases to prosecutors	- Mediates disputes - Appraises copyright violations - Supports the establishment of copyright policies - Corrective measures including the deletion of illegal online copies	- Seizes and disposes of illegal offline copies - Requests the deletion of illegal online copies - Monitors and requests technological measures to be taken by online service providers (OSPs)	- Protects the rights it has been entrusted with by its members- Manages the entrusted rights (*e.g.* through licensing)
Public sector	Public sector	Public + Private	Private sector

C.   ILLEGAL COPYRIGHTS OBSTRUCTION PROGRAM (ICOP)

(a)   Overview

7.   The Illegal Copyrights Obstruction Program (ICOP) was developed in order to automatically monitor online piracy on a 24/7 basis and to respond to copyright violations diversified as a result of changes in digital technology and copyright use environment. In short, the ICOP is an automated tool that searches for pirated copyright works of various genres including music, film, broadcasting, publishing and cartoons, which are being illegally shared on the Internet, and sends requests for their deletion.

8.   The CPC developed the ICOP focusing on sound files in 2008 and expanded it to include videos in 2009. The ICOP supports the monitoring of illegally distributed works by automatically searching for pirated works, collecting related evidence and then sending requests to online service providers (OSPs) to take measures such as stopping the reproduction or transmission. The program was further expanded in 2010 to include literary works and games, then again in 2011 to cover cartoons and computer software, thereby creating an environment where piracy could be tracked and managed comprehensively.
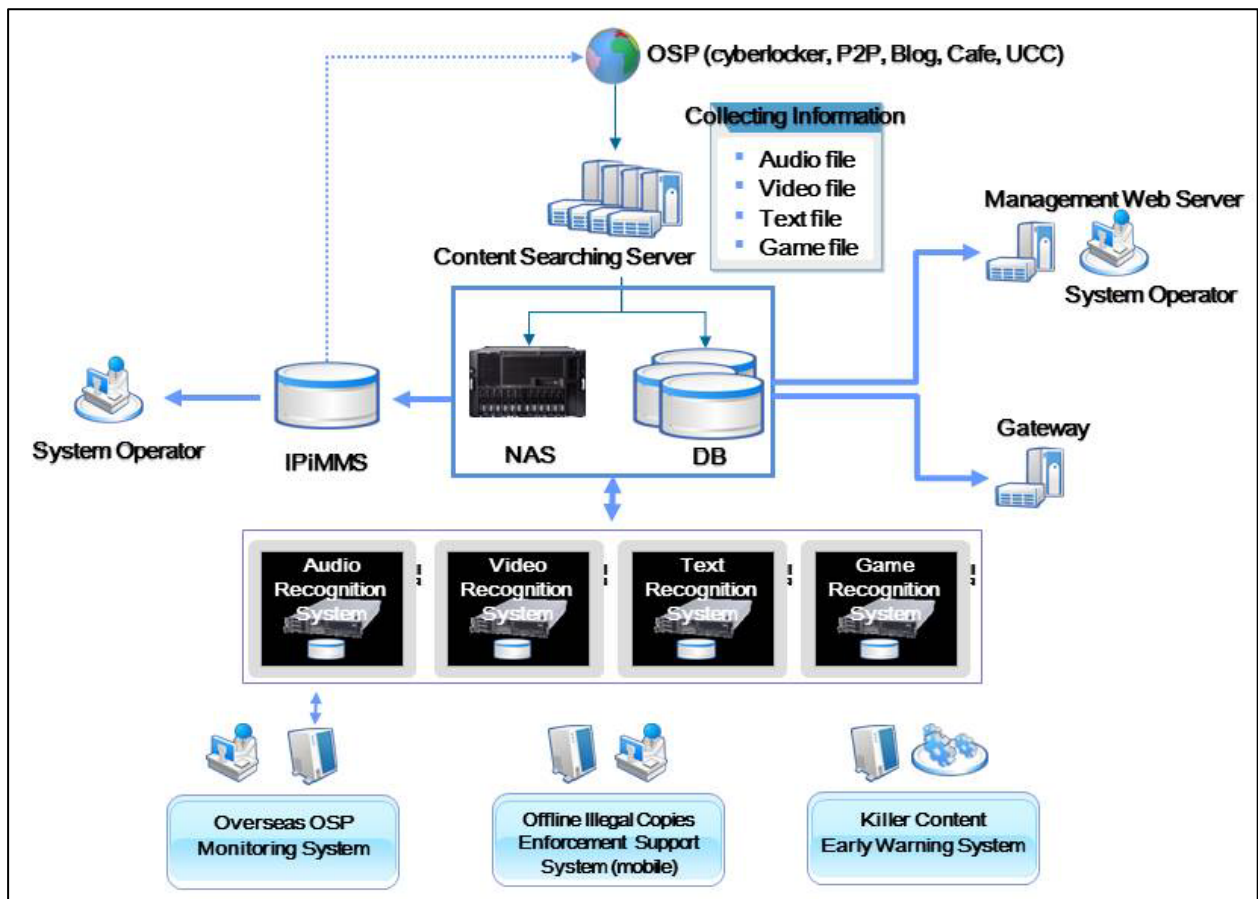
ICOP System Architecture

(b)   Technology

9.   The core elements of ICOP, which enable it to detect pirated works, are its search and content recognition technologies. ICOP's search technology downloads content made available by OSPs, which account for a large proportion of internet content distribution. Depending on the service type of the OSP, ICOP's search technology may be web-based or exclusively tool-based. Based on the relevant type, the technology pre-analyzes the user interface, writes an automatic control scenario, searches posted content with this scenario and downloads the content.

10.   The following basic procedure is repeated to download online content: automatic log in to the OSP, move to the archives, insert search words, search content and then download the content. In the case of zipped files, the program will automatically unzip them, and in cases where search is difficult due to banned words being set at a high level, the program will directly move to the archives and download all or some of the posted content. While it does all this, the posting reference number, the title, the uploader ID and other information of all posted content will automatically be collected for evidence, and the download screen will be captured and stored for a certain period of time.

11.   The content recognition technology analyzes the content of the downloaded files. In order to be able to determine the illegality of the content, first of all ICOP has to be able to recognize the uploaded content. The system then determines the illegality of the recognized content based on information provided by right holders or copyright organizations.

12.   In the case of sound sources, videos and literary content, ICOP uses a feature-based recognition technology, which extracts unique features (or the DNA) of the content files, compares them with the DNAs that are already stored in its features (DNA) database, and the most similar are yielded as the recognition results. This technology is an advancement from the previous hash-based recognition technology, in that it can recognize various formats and transformed files. However, for games and software, features-based recognition technology has yet to be developed, so ICOP still uses hash-based recognition technology.

(c)   Development

13.   In 2011, the CPC developed a script-based OSP search module, allowing system maintenance and repairs to become easier and monitoring more efficient. By separating the large-size file recognition system from the copyright database for each copyright genre, ICOP now has a more effectively running copyright features database, which continuously grows. Furthermore, the recognition of video content has been enhanced by audio track recognition. The management, reporting and control systems have also been upgraded, resulting in further increased efficiency.

14.   In 2012, in order to respond to a more diverse infringement environment, the CPC developed and supplemented the ICOP with a system to monitor overseas OSPs, a system to give early warning about killer content, and a system to support offline enforcement activities. It has also established and is running an integrated operation room in order to manage and interlink these different systems in real time.

15.   Based on the cooperation with relevant overseas governments and organizations, the overseas OSP monitoring system aims to monitor websites abroad so as to better protect copyrighted works, as the illegal copying and sharing of content has quickly spread overseas due to the development of technology. The system supports multiple languages, collects evidence from uploaded postings and automatic downloads content files. Notably, it is also able to download streamed content, not just uploaded files like those used in domestic sites.

16.   The Killer Content Early Warning System was developed in order to preemptively track pirated material – i.e. to prevent movies currently running in cinemas from being illegally distributed and leading to large-scale damage. "Killer content" is content that is very popular and extremely quickly shared illegally, with immense social and economic impact. The number of illegal downloads is particularly high at the front end of its distribution cycle, so an early response to potential violations is very important.

17.   When key words which are typically used for "killer content" and for which a protection request has been made by a right holder, are registered on the web page according to a protection request made by a right holder, the Early Warning System quickly and repetitiously searches the most recent uploads to check whether they include any "killer content". If the system finds a suspicious upload through its keyword mapping process, then it automatically sends a text message to the right holder and the CPC to take protective measures. Thus, follow-up measures such as sending out requests to stop copying and sharing can be processed more speedily and efficiently.

18.   The offline enforcement support system is designed to, through a smartphone application, automatically process reporting of illegal copying, which used to be performed manually. This system is developed in two parts – one application for ordinary users to report piracy and the other to process the results of anti-piracy operations. The reporting application allows users to take photos with their smartphone cameras, and to input GPS location information, information about how the illegal copies are being sold and other relevant information. The other application allows the CPC to read the report that was made, leave a record on the result of the report, and feed the report into a database.

19.   In 2013, a technology to monitor bit torrent sites was developed. Bit torrent sites are emerging as a new channel of illegal distribution, particularly after a new policy has been implemented requiring a particular registration for webstorage services (called "webhards" in Korean; similar to "cyberlockers"). Torrent sites use P2P protocols to allow person-to-person data sharing. Due to their convenience and efficiency, these sites have seen exponential growth in the number of users. As a result, a lot of multimedia content is being illegally shared through these sites, and thus, it has become extremely important for copyright enforcement bodies to monitor these sites and request illegal reproductions and transmissions to be stopped. The ICOP automatically monitors websites that share torrent files and if illegal files are found, the ICOP sends a request to the site administrator to stop the reproduction and transmission of the torrent file.

(d)   Vision

20.   With the ever-expanding use of smart phones, the MCST plans to expand the system to allow 24/7 monitoring of not just online but also mobile platforms and to counteract piracy through streaming services.

21.   In addition to the activities above, the MCST has carefully been designing and carrying out various policies and programs such as online copyright education and campaigns to raise awareness so that the public can voluntarily engage in creating an environment that respects copyright and nourishes the development of cultural industry.

II.   INDUSTRIAL PROPERTY RIGHTS

A.   BACKGROUND

22.   According to the World IP Indicator 2014, the Republic of Korea had the fourth highest number of patent applications worldwide – a rapid growth of intellectual property rights (IPRs) that emphasizes the country's need for effective and efficient protection of IPRs. This is why the Korean Intellectual Property Office (KIPO) is redoubling its efforts to construct a social infrastructure in which IPRs are properly respected and fairly utilized to their full potential.

23.   Counterfeit goods not only put consumers in danger and hinder stable commerce, they also cause serious harm to national economies by undermining domestic brands and deterring foreign investment. Counterfeit medicines and automobile spare parts are especially detrimental to users' health and safety, while other forms of counterfeit goods tend to discourage business-related investment and development, leading to increases in unemployment. In order to combat this global threat, KIPO continually strives to eradicate the distribution of counterfeit goods.

24.   Due to the boom in e-commerce, online transactions of counterfeit goods on Internet shopping sites have increased rapidly. To efficiently tackle this issue, in November 2011, KIPO established an online law enforcement task force equipped with digital forensic equipment to firmly regulate online transactions of counterfeits.

B.   RAISING CONSUMER AWARENESS OF THE IMPORTANCE OF ERADICATING THE DISTRIBUTION OF COUNTERFEIT GOODS

25.   KIPO is carrying out various promotional activities with consumers to raise awareness of the importance of eradicating the distribution and consumption of counterfeit goods.

26.   KIPO organized a series of public awareness activities and collaborated with civic consumer advocacy groups to enhance IPR protection and consumer awareness of the illegality of counterfeit goods.

27.   KIPO held national campaigns in 13 cities and provinces, urging consumers to buy genuine goods. Since 2011, KIPO has conducted a total of 96 consumer training sessions targeting housewives and office workers to prevent them from purchasing counterfeits.

28.   KIPO produced televised advertisements – using a famous actress as its publicity ambassador – to form a social consensus on the illegality of counterfeit goods. KIPO also enhanced public awareness using various online media, including Social Media Services.

29.   In 2014, KIPO launched the "College Student Supporters" program to promote IPR protection among college students. KIPO also produced cartoons to raise awareness of IPR protection among the youth, then conducted practical education on how to distinguish genuine goods from counterfeits.

30.   Furthermore, KIPO designated "IP Protection Week", during which it held exhibitions on discerning authentic goods from counterfeits, signature-collecting campaigns to promote IP awareness among the general public, and other IP-related activities.

31.   In conjunction with consumer organizations and other civilian groups, KIPO will continue to educate consumers and raise awareness of the harmful nature of counterfeit goods through televised commercials and other such promotional efforts.

C.   ONLINE ANTI-COUNTERFEITING ENFORCEMENT

32.   With the expansion of online open markets (such as marketplaces and auction sites), the online distribution of counterfeit goods has shown a steep yearly increase as the opportunities for distribution continue to grow.

33.   In response to this, KIPO established IPOMS (Intellectual Property On-line Monitoring System) to more effectively restrain the distribution of counterfeit goods.

34.   IPOMS, in operation since 2010, is an online monitoring system that detects listings for counterfeit goods posted on Korean online marketplaces, auction sites and individually owned shopping websites. It prevents the sale of counterfeit goods by deleting such listings and blocking site access in collaboration with the Korean IP Protection Association (KIPRA).

35.   IPOMS uses an automatic monitoring system that aggregates information from sales postings on online open markets and detects counterfeit goods by consulting detection keywords, blacklists, and price information. If the system detects the presence of counterfeit goods, the open markets are notified so they can voluntarily stop the sale of those goods.

36.   After a counterfeit is identified and sales of that item stopped, the system prevents further offenses by blacklisting the seller's ID. The managing companies of online open markets also prevent registrations from blacklisted sellers by monitoring the sellers' personal information.

37.   Furthermore, if IPOMS catches a shopping website operating in counterfeit goods, professional monitors gather evidence of additional sales and request a review by the Korea Communications Standards Commission, thereby blocking access to the site or shutting it down completely. Repeat and large-scale counterfeit sellers may be investigated by a special online squad, depending on the circumstances of the case.

38.   In 2014, KIPO stopped 5,348 sales in open markets and shut down 454 shopping websites. It also succeeded in stopping the sale of 3,182 counterfeit goods, most of which were in the form of clothing, bags, wallets, and fashion accessories designed by famous Korean and foreign brands.

Results of online anti-counterfeiting enforcement activities

Type	2011	2012	2013	2014	Total
Open Markets (Stopped sales)	3,566	4,256	4,422	5,348	17,592
Shopping Malls (Shut down)	364	505	828	454	2,151
Criminal Charges	18	109	117	41	285
Confiscated goods	1,198	25,949	9,099	3,182	39,428

39.   In addition, KIPO is constantly improving IPOMS' response to the increasing sophistication and diversification of online counterfeit goods distribution channels. For instance, when it comes to counterfeit items such as bags, watches, and shoes – the sales of which take place in a very short period of time – IPOMS is set up to automatically check posts within one hour of their appearance on open markets. Also, aggregation is extended beyond individually owned shopping websites promoted on web portals to include blogs, online communities, and social network sites, thereby minimizing blind spots in the information-gathering process.

D.   IMPROVING LAWS AND SYSTEMS RELATED TO IPR PROTECTION

40.   In hopes of affording increased patent protection, KIPO has reviewed various means for improving laws and systems regarding damages for IPR infringements.

41.   In order to effectively apply damages to patent infringements, KIPO convened a committee of external experts to improve the damages system, analyzed civil and criminal rulings related to patent infringements, conducted nationwide surveys (targeting relevant companies) on whether to increase damages, and listened to feedback received from various stakeholders in order to draw up improvement measures.

42.   KIPO's efforts resulted in a proposal to revise the Patent Act. The main content of this proposal can be largely categorized according to the following concepts: developing a more effective system for setting damages, suppressing malicious patent right infringements, alleviating the burden of proof that falls upon patent right holders, and preventing trade secret leakage during trials.

43.   The revision proposal to the Patent Act is expected to be discussed at the National Assembly in 2015, and it will help bring about a fair and effective system regarding damages for patent right infringements and enhance the effectiveness of the patent system, thereby greatly contributing to a healthy IP ecosystem.

44.   In addition, KIPO is collaborating with domestic and foreign customs to prevent counterfeit goods from being cleared through customs. KIPO also helps register IPRs with customs in order to protect them more effectively and efficiently.

E.   FUTURE PLAN

45.   To promote a nationwide attitude of respect for IP, KIPO will further expand its Special Judicial Police Force for protecting trademark rights, as well as reinforce its online investigation team in order to help them more efficiently track and investigate avenues of counterfeit goods distribution.

46.   In particular, KIPO will work to strictly enforce against repeat offenders and repress popular avenues of counterfeit goods distribution and those counterfeits that threaten public safety (i.e. counterfeit medicines, etc.).

47.   Since consumer awareness is critical for eradicating counterfeit goods, KIPO plans to run promotional campaigns targeting diverse consumer groups, such as college students, homemakers, and office workers, to engender a culture of national respect for IP.

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