



### 2018 KCOPA REPORT

Korea Copyright Protection Agency

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Park Sung-hoChairman, Copyright ProtectionDeliberation Committee (KCOPA)

#### **Korea Copyright Protection Agency**

- Take counter-measures for online illegal reproductions including deliberation, elimination, corrective recommendation, etc.
- Research infringement status and draw statistics
- Status inspection for SW usage in public institutions
- Copyright protection technology R&D
- Support investigation for copyright infringement
- Certifying the Copyright OK

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### **KCOPA** Column

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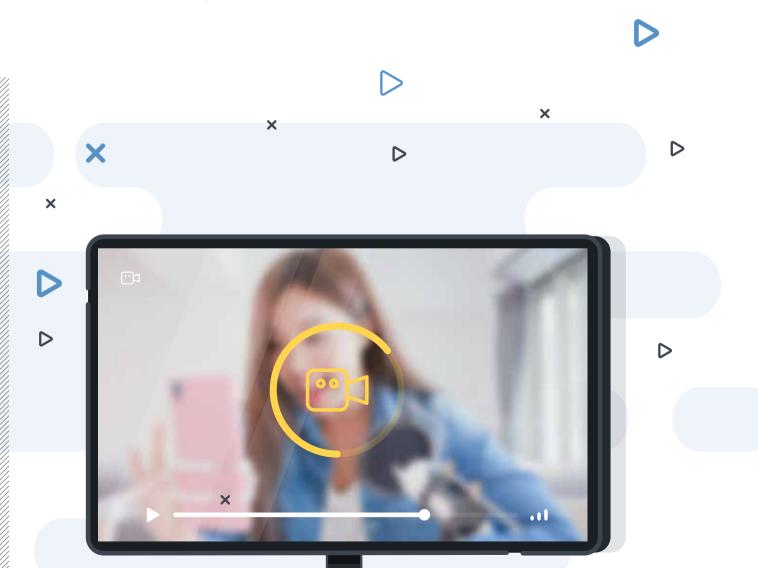
Video Content Protection



# Copyright Violations in Personal Broadcasting and How to Tackle Them

Recently, an increasing number of people (dubbed "BJs") are broadcasting personally through Internet platforms such as Youtube, AfreecaTV, Daum TVpot, Naver V LIVE, and Pandora TV. Their shows are protected by copyright laws, but some BJs unwittingly violate someone else's copyrights. This article will look into copyright infringement cases in proliferating personal broadcasting activities and also into regulations and countermeasures against them.

written by Jeon Se-jun | Leading Lawyer, Law Firm Jeha



#### The concept and content of personal broadcasting

The coupling of recent technological advances and ready availability of the Internet is creating a passion for personal broadcasting, which utilizes Internet platforms such as Youtube, AfreecaTV, Daum TVpot, Naver V LIVE, and Pandora TV. Internet personal broadcasting still doesn't have a settled definition. In many cases, however, it is understood as producing, by one or multiple presenters (BJs)<sup>1)</sup>, a variety of content covering diverse subjects including sports, music, films, games, fun talks, education or as producing separate broadcast shows utilizing already existing content, and then providing them online to multiple Internet users, free or paid, in streaming or in VOD forms.

Internet personal broadcasting consists of transmission of videos by BJs through the servers of Internet broadcasting platform providers and reception of them by viewers. BJs take full responsibility for the whole process of broadcasting, including planning, presenting and producing. Therefore, the shows created by BJs, providing that they satisfy the conditions stipulated in the Copyright Act, constitute "works" protected by the law, and the BJs enjoy the rights that the law bestows on copyright holders.

For this reason, when someone says a particular BJ has violated the Copyright Act, it basically means he or she infringed upon other people's copyrights in producing their broadcast shows, and Internet broadcasting platform providers cannot be held accountable for the breach of the Copyright Act, unless there are special circumstances such as conspiracies or wittingly aiding and abetting. This article will provide an overview of copyright infringement cases that occurred in the field of personal broadcasting, which is gaining increasing popularity.

#### Copyright violations spawning from the proliferation of personal broadcasting

When BJs unwittingly violate copyrights in producing their shows or copyright holders are unaware of violations on their rights committed by BJs, it can be treated as if there were no such infringements even though they actually did occur. To prevent such situations, some Internet broadcasting platform providers, for example AfreecaTV, have tried from several years ago to proactively tackle copyright issues by signing copyright license contracts with Recording Industry Association of Korea or broadcasting companies. The contracts help protect copyrights typically by stipulating that BJs who are reliant on AfreecaTV platforms for transmission can utilize music or video content in their shows without individually getting permissions from copyright holders of those content, and then AfreecaTV pays the copyright owners for the use of their content. The scheme, however, does not completely preclude the possibility of BJs infringing upon someone else's copyrights, because Internet broadcasting platform providers cannot enter into such contracts with every copyright owner that could be relevant.

Take, for example, personal broadcasts showing BJs playing games ("game shows"). Game shows make up a



<sup>1)</sup> These presenters are generally called "BJs (short for Broadcasting Jockeys)", who are in charge of almost every aspect of the shows such as planning, producing, shooting and presenting.

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large portion of the entire BJ productions, and they earn BJs and the related Internet broadcasting platform providers considerable amounts of money. The BJs are highly likely to be judged to have violated the right of public transmission bestowed on copyright holders by the Copyright Act, because many of game show BJs don't bother to get permissions from game producers.

Another category of cases where BJs violate copyrights occur when they broadcast their reviews on films or put their voices in them. These occasions also are likely to have infringed upon copyright because they are unlikely to constitute the cases where copyright can be legally constrained as provided by the Copyright Act, and many of the BJs do not acquire consents from copyright holders for the movies.

Last year, AfreecaTV paid hundreds of thousand dollars in copyright fees for the right to broadcast live U-20 World Cup Games, and a BJ who mainly uses Youtube for transmission secretly broadcast the soccer games on a Youtube channel, attracting criticism<sup>2)</sup>. The problem here is that such violations can repeat themselves through freshly created accounts even after the Internet platform provider takes actions against the offenders, for example, by suspending the use of the trespassing accounts.

Apart from the cases described above, a considerable increase is expected for cases where BJs, deliberately or negligently, violate copyright in their shows, with the prospect of personal broadcasting becoming more and more popular and of Internet platform providers proliferating that enable easier show production. Furthermore, there will be increasing infringements upon BJs' copyright by third parties. In such cases, the BJs will find it hard to act individually against those violations, which is likely to make such violations more frequent.

#### How to tackle copyright infringements in personal broadcasting

When there are suspicions of copyright violation in BJs' shows, government agencies can hardly look into every case of them. Thousands of shows are personally broadcast at the same time, with their content immediately disappearing in the air (most shows are streamed live, with some exceptions of being stored in VOD forms), which makes it difficult to monitor or acquire evidence about them unlike for stored content. Moreover, channels used for Internet broadcasting are opened or closed at any time, and many of those channels are open only for those approved by the BJs. The responsibility for looking for possible infringement cannot be put on platform providers, either, because it is not easy for private companies to determine whether copyright has really been violated by checking many complicated legal issues such as the existence of copyright in the cases in question, ownership of the rights and so on. Monitoring by platform providers, when judgment itself is very hard to make, can hardly be expected to effectively stop copyright violations. In a word, shifting the burden from the government onto private platform providers cannot solve the problem.<sup>3)</sup> When

BJs' show content has been illegally exploited by someone else, calculating the damages of the violations is difficult, and the BJs taking the cases to court is a practical impossibility.

My experience of handling copyright trials as an attorney in court tells me that even the best copyright laws cannot produce effective solutions if investigation agencies or the courts keep slapping violators on the wrist. In most criminal cases regarding copyright infringements, violators who allegedly inflicted hundreds of thousand dollars' worth of damages are sentenced to only thousands of dollars in fine. In civil cases, despite the damage estimation clause in the Copyright Act for the benefit of victims who are burdened with proving his/her economic losses, satisfying the conditions<sup>4)</sup> for the provision to be applied can be prohibitively

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Copyright infringements will not disappear unless violators are forced to think they will be hit hard for their actions, which makes it imperative for investigative agencies and courts to punish copyright violations more severely.

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difficult, consequently the court determines the amount of damages in its discretion according to Article 126 of the Copyright Act. The damages acknowledged by the court, however, are not sufficiently big, which gives potential violators an incentive to go about making money without considering copyright issues, thinking that going to court for a copyright violation wouldn't be that expensive.

Copyright infringements will not disappear unless violators are forced to think they will be hit hard for their actions, which makes it imperative for investigative agencies and courts to punish copyright violations more severely.

Punishment cannot solve every problem. Violations of copyright laws, however, have been punished too lightly considering the seriousness of the infringements and the size of profits that violators get from the actions. The unbalanced punishment has created a lot of copyright violations by large companies, which necessitates higher levels of punishment and promotion efforts to raise public awareness on the issue. Aside from the need to place more severe criminal punishments on company-type violators, introducing punitive damages should also be considered. Having BJs take mandatory copyright classes in which they can learn the minimum legal knowledge related to personal broadcasting will contribute effectively to developing a copyright protection culture.



<sup>2) &</sup>quot;AfreecaTV pays hundreds of thousand dollars for broadcasting U-20 and Youtube steals it," EDAILY, May 24 2017

<sup>3)</sup> Moreover, if the BJs in question are hugely popular and consequently make a lot of money, the economic interests make it hard for platform providers to place stern regulations or punishments on them.

<sup>4)</sup> Article 125 (paragraph 1) of the Copyright Act estimates the amount of damages suffered by a victim at the amount of profits that the infringement brings to the violator. Therefore, victims sometimes have to prove "the amount of profits that the infringement brings to the violator" at trials, which is almost impossible because information on the profits belongs only to the violators. Paragraph 2 of the same Article goes on to put the amount of damages at "the amount of money that exercising the right normally brings in," which is also hard to rely on because there cannot be reasonable standards to decide "normal amounts of money" when copyright holders have not profited in the past from distributing his materials in the same way that violating actions did.



# Blocking Access to Foreign-based Webtoon Piracy Sites and their Effects: Insights from Statistics

Korea Copyright Protection Agency has conducted DNS blockage more than ten times from May until August. Though they created alternative sites and moved users to similar websites, access blocking efforts were a significant success. This article will examine web user data to review attempts to block access to foreign-based webtoon piracy sites during the previous intensive regulation, their effects and the future direction of the regulation endeavors.

written by Dong Su-hwan I Team Leader, Online Protection Team, KCOPA

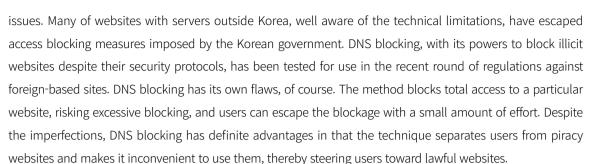


#### The reasons behind DNS Blocking against piracy websites based outside Korea

The previous year witnessed an acutely increasing number of websites openly distributing illegal content by moving their servers out of Korea to avoid regulations, with webtoon piracy websites such as Bamtoki causing escalating damages onto companies or individuals that produce the Korean-style webcomics. In May, the Korean government developed a set of guidelines<sup>1)</sup> for anti-piracy measures against websites based outside Korea, and launched a series of intensive regulations by organizing inter-agency cooperation among government bodies including Ministry of Culture, Sports and Tourism (MCST), Korea Communications Commission (KCC) and Korean National Police Agency, The intense oversight comprises two-tiered efforts that include blocking access to major piracy websites (testing DNS-blocking methods) and conducting planned investigations.

The procedure of access blocking goes as follows: MCST and Korea Copyright Protection Agency (KCOPA) ask Korea Communications Standards Commission (KCSC) to deliberate on blocking access (specifying DNS blocking) to foreign-based piracy websites deserving urgent actions. Then, KCC asks Internet service providers (ISPs) to block access to the KCSC-reviewed websites. Access blocking has legal basis on the first paragraph of Article 44 of Communications Network Act. The action currently targets big-shot piracy websites, and is expanding its target list.

What is the rationale behind adopting DNS blocking, when access blocking has already been in operation? The most prominent reason is the technical limits of the existing methods. The action, as the name implies, blocks Korean users from accessing piracy websites based out of Korea. If, however, the foreign-based sites incorporate security protocols (including https methods), the procedure doesn't work due to technical



This article will go on to explain how DNS blocking works and its effects by analyzing statistics on the use of piracy websites, especially those distributing webtoon materials, a typical example of which is Bamtoki.

#### An Overview of analyses of foreign-based webtoon piracy websites

This article utilizes two kinds of statistics to understand how effective DNS blocking is: first, data from 'SimilarWeb' (free version), which analyzes global websites traffic; second, data provided by 'Neilsen Koreanclick,' which looks into Korean users' online behavior. The two sets of data are slightly different from each other in content and data collection methods. SimilarWeb gathers data in a hybrid fashion, combining data of global panel users and data measured by the service. Nielsen Koreanclick, on the other hand, collects data from Korean users as panels. This article relies on SimilarWeb data for general use trends, and on Nielsen Koreanclick data for detailed use statistics in a specific period of time.

Websites for analysis can be classified into two groups: webtoon piracy websites based out of Korea (including websites currently under monitoring and already shut-down ones) and paid (lawful) webtoon websites based in Korea. Four questions that this article attempts to answer are: First, what effects the initial DNS blocking has brought about; second, how blocking access to piracy websites has changed the way people use paid websites; third, how alternative websites have replaced blocked ones and how additional blockings were carried out; fourth, how traffic travelled to similar websites ("balloon effects").

#### DNS blocking endeavors and their effects

DNS blocking endeavors, which started in the early May, produced imminent effects (figure 1). The outcomes reached their peak with media reports on the arrest of Bamtoki operators toward the end of the same month and the shut-down of the website. Traffic into Bamtoki fell by about 97 percent from 34,800,000 people—measured by the peak of visitors—in April to 950,000 in June. In the process, popular paid webtoon websites (for example, lawful A or B websites) showed as much as 9 percent of growth in traffic during the period between April and June, as shown by figure 2. Despite some fluctuations, the graphs are generally going in upward directions.

After it was known that alternative websites to the blocked ones quickly came into existence, similar blockings have been repeated. The process of substitution and additional blockage is illustrated by figure 3. The figure shows repetitions of upward (effects of alternative websites) and downward (effects of blocking the



<sup>1)</sup> Intensive regulations on foreign-based websites distributing illegal content including webtoon (MCST, May 2nd 2018)

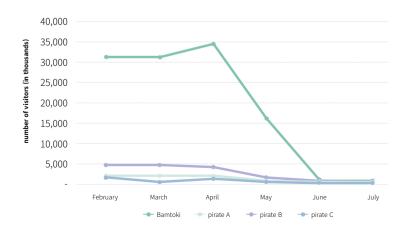
substituting sites) movements, with the graphs forming several peaks. You can witness a see-sawing of traffic that originates from the battles between newly created piracy websites and blocking efforts, exchanging attacks and counter-attacks. Figure 3 illustrates a process in which alternatives are created to piracy websites A and B, which have amounted to about ten sites, respectively.

Blocking access to several big piracy websites has moved traffic not only to their newly created alternatives, but also to less popular, already existing piracy websites similar to the blocked ones, creating so-called balloon effects. In the early June, DNS blocking efforts began to include these similar websites in the target list. Figure 4 illustrates that piracy website A (left), one of the biggest illegal distributors, grew steeply in traffic growth rate (as much as 2,500 percent) as if it were absorbing all the traffic that left Bamtoki. Other piracy websites (right) began to grow in traffic in May, showing rapid escalations since June. Access has also been blocked to similar websites calling for urgent measures. Above was an overview of DNS blocking endeavors under way and their effects.

#### **Conclusion and implications**

DNS blocking has been conducted more than ten times, starting from May until August. The number cannot be underrated, considering the complicated procedure of carrying out DNS blockage. Access blocking, despite its effects, cannot stop alternative websites from being created or users from moving to similar paid sites. An informal calculation puts the number of foreign-based webtoon piracy websites at around 100. Piracy regulation has a long way to go. Effective access blocking requires the ability to block a lot of websites at the same time<sup>2)</sup> and in an intensive manner, which necessitates streamlining the procedure and overcoming technical limitations. A bill to simplify the blocking process, pending in the National Assembly, would, combined with improvements on blocking technologies, result in more effective anti-piracy implementations against foreign-based websites. Police investigations and campaigns for a higher user awareness, coupled with continuous blocking efforts, will launch powerful attacks against piracy.

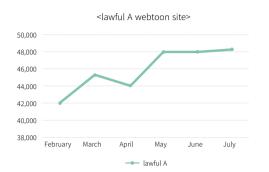


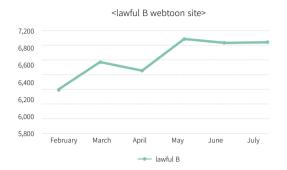


2) THE EFFECT OF PIRACY WEBSITE BLOCKING ON CONSUMER BEHAVIOR (Brett Danager, 2015)

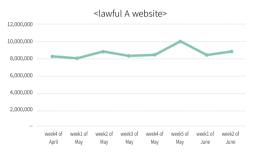
figure 2 | Changes in use of paid (lawful) webtoon sites

SimilarWeb visitor data (monthly, number of visitors in thousands)





Nielsen page view data (weekly, number of views)



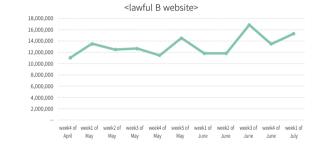


figure 3 | Formation and blockage of alternative piracy websites



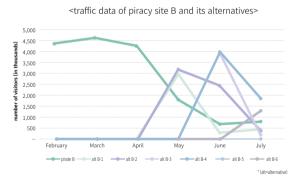
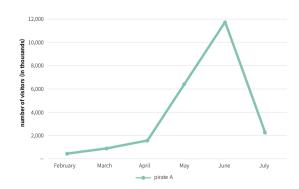
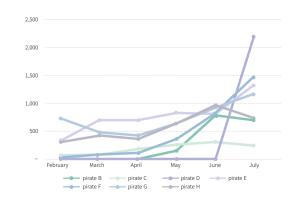


figure 4 | Traffic movements to similar piracy websitess







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## **Video Content Protection through AI Technology**

Pirated videos are endlessly spreading over the Internet, preventing the world of content from flourishing, which calls for greater efforts toward better technologies to protect copyright. Recently, a variety of deep-learning algorithms and computer vision technologies are being constantly researched and developed that can be applied to protect video content. MINDs Lab and the author are paying increasing attention to the field and are deepening technological perfection of ViSUAL, a video understanding framework. This article will look into various methods of protecting video content which are developing by MINDs Lab.

written by Paek Hoon | Executive Director, MINDs Lab



We are living in an age when everything is told in videos. Online world—from Youtube to Facebook to Instagram, to name a few—is crowded, right at this moment, with a deluge of new images and videos about everything. It has been a long time since Youtube became the most time-consuming app for users of all ages. People don't wait in front of their TV sets for their favorite shows. Instead, they watch their beloved soap operas with their hand-held devices, at any time they want to. Following the fads of 'eating shows' or 'gaming shows,' those in their teens or 20s are now obsessed with 'vlogs (a word combining video and blog),' which show people's everyday lives. Even those in their mid or senior years, who used to stick with traditional media

such as TV news programs or newspapers, are now opening their Youtube apps to keep up with the world. Videos are making their close and tight ways deeply into our lives.



An exponential growth in video consumption has one serious problem: it comes with an equivalent outburst in the production and distribution of illegal content. Illegal copies had existed before the world went digital. Rapid technological advances of today, however, are amplifying the damages from illegal content beyond comparison with the past. Films or broadcast shows, with their short distribution lifespan, are hit hardest by piracy. Online storage services and streaming websites are incorporating a variety of video-filtering technologies to block pirated content, which are not successful in eradicating all the piracies.

Video copyright protection technologies can basically be classified into two groups: 'anterior' technologies which are employed before the distribution of content, and 'posterior' technologies which are used to stop content from being illegally distributed after consumption. DRM (Digital Right Management) and CAS (Conditional Access System) are typical examples of anterior technologies, encrypting video materials in advance of their distribution. Posterior technologies include Forensic Marking, a tactic in which information on owners or buyers of video content are treated with watermarks, or illegal leakages of content can be traced. Despite the brilliance of these strategies, there also exist measures to avoid them. In fact, no protection technology can completely root out illegal video content production.

#### Deep learning, the heart of artificial intelligence

Search for video piracies is possible through filtering technologies that utilize frequency, color, space and pixel information of videos. The tactics work by capturing features—color or pixels—of a particular video and by looking for other videos with the same set of characteristics. If the technique catches illegal content, online storage services or streaming websites which were interested in posting the content can filter them out of their distribution channels. But the story doesn't end there. There are a variety of ways that help avoid filtering methods, such as flipping the screens, changing picture qualities, and putting random marks in images.

A new strategy developed to overcome such limitations is the video recognition method utilizing Video Understanding technology based on deep learning. Deep learning refers broadly to technologies used to group or classify things or data. It enables computers to distinguish between data by recognizing patterns hidden within a huge mass of data, in much the same way that human beings tell different things apart. Deep learning lies at the heart of artificial intelligence (AI) because the technology can analyze data to find out criteria for recognition or classification without being taught by humans.

Video Understanding technologies keep advancing, hand in hand with progress of deep learning. The methods went beyond simply recognizing objects in a video to defining or reasoning relationships between objects in a video and even to explaining the sequence of events in order of time. MINDs Lab, an AI start-up that I am with, has been researching in cooperation with Korea Copyright Protection Agency (KCOPA) copyright recognition algorithms on the basis of a deep-learning Video Understanding framework named

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"ViSUAL" (short for Video Search, Understanding, Analysis and Learning) and also has been developing an empirical system that puts the knowledge to use in the field.

#### **Catching Pirate Videos through Deep-Learning Video Understanding**

How, then, does deep-learning Video Understanding technology, like the one behind ViSUAL framework, determine whether a particular video has been illegally produced or distributed? The key to answering the question lies in defining a unique set of features of a particular video and precisely extracting them. The tactic works as follows: when fed a certain video, the program pulls out a defining set of features from it, and compares the feature-set to that of an original video calling for copyright protection. If the program finds out something common in the two sets of characteristics, it announces the equality of that video to the copyrighted content and consequently its illegality. Astonishingly, this process exactly models itself after that of human judgment through which to determine whether he/she has seen it when they watch a video.

Human beings, unlike computers, do not remember a video on the basis of brightness of pixels or changes in illumination. They remember videos, in a comprehensive way, based on faces of characters, conversations exchanged between them, peculiar objects placed on particular space in a scene, what subtitles say, what describes a screen such as logos or marks that are seen on the upper space of a screen, and the way all of these factors change with time. Deep-learning Video Understanding technologies, like the one incorporated in ViSUAL, work in the same way. Just as humans do, deep-learning computers, using Computer Vision and deep-learning algorithms, recognize and extract a variety of factors that characterize a video, including conversations, specific objects in specific places, brand names, particular calligraphy of store signs or subtitles and marks on screens. It also utilizes changes of the recognized features over time as part of characteristics defining the video.

#### Video Copyright Protection System overcoming the limitations of existing methods

Deep-learning Video Understanding frameworks, including ViSUAL, draw on features based on a variety of scene-defining factors, which enables them to disarm avoiding techniques that are employed to escape posterior technologies which rely on pixels to recognize copyrighted materials. The advanced method also does not create any inconveniences for video consumers because it is designed not to disturb everyday processes of image recognition and consumption. As a result, the new tactic not only overcomes the limitations of previous methods for video copyright protection, but also enables more effective determination of illegality for videos in question. Moreover, the method expresses scene-describing factors in texts, not in images, which accelerates data search beyond comparison with pixel-based meta data.

The results were beyond expectation. MINDs Lab, which developed in cooperation with KCOPA a video recognition system based on ViSUAL framework, tested on scores of illegal videos incorporating copyright

avoidance techniques to compare with about 100 copyrighted original videos including films, entertainment shows and soap operas. The system perfectly determined the illegality of the piracy materials, with an unimaginable speed under the existing methods.

MINDs Lab, making use of ViSUAL framework in order to produce a video copyright recognition system with high degrees of recognition and velocity, tried every conceivable technological route to find the most effective way of capturing and utilizing defining factors in videos. To identify and draw out elements of each scene of a video, such as conversations, faces, objects, writings and marks, the lab employed Computer Vision and various deep-learning algorithm models including LSTM-RNN (Long Short-Term Memory, Recurrent Neural Network), FaceNet, inception net, Resnet, YOLO (You Only Look Once), Tensorflow object detection API, and LSTM

How to make it easier to use the program's functions and also how to sophisticate them were among the challenges facing MINDs Lab and KCOPA. To achieve these ends, individual functions such as extraction or recognition, which had been spread over the whole process, were integrated into separate modules, and technologies to optimize search function were also incorporated, including MongoDB and Elasticsearch. Of crucial importance was to enable many content-related companies or institutions suffering from piracies to rapidly grasp and swiftly act against a massive host of pirated video content. For the purpose, MINDs Lab took into consideration the possibility of the system servers expanding into a cloud environment so that the designed copyright identification system can be commercialized in a massive scale in the future.

#### ViSUAL frameworks open a new paradigm of copyright protection technology

Of course, development and wide application of this technology does not mean complete eradication of illegally produced or distributed content. The method, however, can be credited with opening a new chapter in the history of copyright protection by overcoming the limitations of existing ways, such as excessive time or money costs, total helplessness in some cases, and lack of precision or speediness.

In an age when everything is told in videos, markets for content will quickly pass through texts and images to videos. There will be no dispute on the fact that creative content filled with wit, knowledge and experiences, and platforms that share such content will grow endlessly and also transform themselves. Illegal videos are the archenemy of the trend, stopping the world of content from flourishing, which is why new technologies and efforts to protect copyright deserve more attention and passion.

Right at this moment, a variety of deep-learning algorithms and Computer Vision technologies that can work for more safely protected videos are endlessly being researched and developed. MINDs Lab and I are paying increasing attention to this field and also deepening the technological perfection of ViSUAL. Grandiose as it may sound, I hope the ViSUAL framework will help protect content and also help inspire creators, thereby contributing to an ecosystem alive with rich content. Nothing will be a greater reward for technology developers like me.



KOCPA REPORT\_C STORY meets Icons

# C STORY meets Icon

22 Park Sung-ho

Chairman, Copyright Protection
Deliberation Committee (KCOPA)



C STORY meets Icons





Enhanced research capabilities of Korea Copyright Protection Agency will boost trustworthiness of deliberations conducted by the Copyright Protection Deliberation Committee.

Copyright Protection Deliberation Committee in Korea Copyright Protection Agency deliberates on a variety of copyright-related issues as a neutral mediator to protect authors' rights and also to promote fair use of content. The current issue of <C Story> meets Chairman Park Sung-ho (Professor, School of Law, Hanyang University) to listen to his ideas on the roles of the committee, principles governing its procedure, and what the agency should do in preparation for a possible revision of the Copyright Act.

written by Park Sung-ho pictures taken by Seo Hoon

### What roles does Copyright Protection Deliberation Committee (hereafter "the Deliberation Committee") play?

(A) The functions that the Deliberation Committee is supposed to perform are provided in detail by Article 122-6 of the Copyright Act (hereafter "the Act"), which stipulates on the composition of the committee. The roles can be grouped into four categories as follows. Firstly, Article 103-3 ("Request for Information on Reproducers and Transmitters") of the Act provides that when a claimant to a particular right asks the relevant online service provider for information on those who have illegally reproduced or transmitted copyrighted materials, the Deliberation Committee looks into the matter following a request for deliberation from Minister of Culture, Sports and Tourism (hereafter "the Minister"). Secondly, the committee performs deliberations stated in Article 133-2 ("Orders, etc. for Deletion of Illegal Copies, etc. through Information and Communications Networks") of the Act. The committee deliberates on the deletion orders, which constitute a prerequisite for administrative compulsory executions, following a request for examination from the Minister. The third category of deliberations are based on Article 133-3 ("Recommendation of Corrections") of the Act. The fourth group of deliberations are conducted on matters for which President of Korea Copyright Protection Agency (hereafter "KCOPA") requests examinations or matters on which Chairperson of the Deliberation Committee refers to the committee. One example of the category can be a case where President of KCOPA asks the committee to examine whether or not some content on a foreignbased website violates the rights owned by Korean copyright holders. If the committee determines that the content constitutes a piracy, then the Minister requests Korea Communications Standards Commission to block access to the website.



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#### What are the principles that are supposed to guide the deliberation procedure and what are the factors that come into much consideration in actual deliberation sessions?

As I said, there are several different types of deliberation. Furthermore, each of the categories comprise cases which diverge in many ways from each other. The principle that, I think, should govern the deliberation of individual cases is that you have to do your best to apply the laws, including the Copyright Act, related to the deliberation procedure in a rational and fair way. Special attention needs to be paid to the second paragraph of Article 122-6 of the Act which stipulates that there should a balance between the number of members representing right holders' interests and the number of members standing for users' interests in the composition of the committee. This provision can be understood as requiring that deliberations take both protection of copyright owners and fair use by content users into balanced consideration. Understanding the law in this way is an embodiment of the purpose of the Act which is, according to its Article 1, to protect the rights of authors and to promote fair use of works in order to contribute to the improvement and development of culture. These points, I think, make it necessary to consider the raison d'etre of copyright laws in actual deliberations.

#### 

- ② A revised bill of the Copyright Act (sponsored by Rep. Kim Jung-je) would empower Minister of Culture, Sports and Tourism to order online service providers to block access to illegal content. When enacted, the bill is expected to expand the Deliberation Committee's roles. What is your take on the matter?
- (A) As elaborated before, paragraph two of Article 122-6 of the Act says that there should a balance between



the number of members representing right holders' interests and the number of members supporting users' interests in the composition of the committee. The spirit of the provision may make it inappropriate for Chairperson of the committee to express his or her personal opinions on a specific bill. As a scholar who studies copyright laws, however, I feel I could give academic explanations and introductions of the bill. There are two broad categories concerning examples of legislation about access blocking related to copyright infringement: 'judicial' types running on orders made by courts and 'administrative' ones based on orders made by the administration. The first category includes Article 97-A of the copyright law of the United Kingdom and Article 115A of a similar statute of Australia. German laws have no equivalent provisions, but German Federal Court of Justice (BGH) ruled in 2015 to the effect that access blocking can be granted by applying a concept of indirect infringements ("Störerhaftung" in German) based on Article 823 and 1004 of the Civil Law. Considering the ruling, Germany can also be classified into 'judicial' group of legislation on the matter. The bill sponsored by Representative Kim constitutes an example of 'administrative' types of legislation because it authorizes the Minister to issue, after going through an examination by the Deliberation Committee, an access-blocking order, which is basically an administrative command. When you think about an ideal copyright law, you will need to give a sufficient amount of consideration, and a systematic and empirical examination to related issues, such as desirability of



C STORY meets Icons

including access blocking measures in the law or preferability between 'judicial' and 'administrative' types of blocking actions. The necessary questions to ask would include: Does access blocking fit the basic principles governing the Internet? Can access blocking violate the constitutional rights to free expression and communication or even rights to trials by judges? Can access blocking work when new technologies continuously appear?

#### @ What can KCOPA do to better perform its functions under the revised Copyright Act?

(A) KCOPA operates in a new area of law enforcement, which can be understood as a hybrid of traditional copyright and administrative laws. You could name it "copyright-administrative law." The area is filled with tasks which only can be solved by a mastery of administrative laws as well as of copyright field. If enacted, the bill proposed by Rep. Kim will make the new field of "copyright-administrative law" more important and also will push it toward the center of attention. Under such circumstance, it becomes imperative to upgrade KCOPA's research capabilities. Enhanced research capabilities of the agency will boost trustworthiness of deliberations conducted by the Deliberation Committee. Incidentally, recommendations of correction issued by KCOPA after going through the Deliberation Committee's review can be understood as a kind of administrative measures. considering the decisions by the Constitutional Court and the rulings by judicial courts made with respect to requests of correction issued by Korea Communications Standards Commission, a similar agency to KCOPA. Some people, however, misunderstand the agency's 'hard powers,' such as the power to issue administrative measures, as the only meaningful role of KCOPA. Such attitude lies behind being obsessed with tangible outcomes, like statistics regarding administrative actions, or with showing off through flamboyant events. Hard powers, however, can be exercised only because they are based on 'soft powers,' and the soft powers are what support hard powers and breathe life into them. And soft powers come from enhanced research capabilities.

#### With your experience on the Deliberation Committee, do you have any suggestions for improvement about the current copyright protection system or ideas for revisions of copyrightrelated laws?

The entire legal system of copyright protection, including the Act and its enforcement decrees and rules, is strewn with shortcomings regarding the targets or procedure of deliberation, deserving close review or even revision. Many of KCOPA employees will agree with me on this point. Every team or bureau of the agency needs to work on finding out areas for improvement or modification, and they also need to prioritize the uncovered weaknesses.

#### How do you evaluate KCOPA's performance up until now, and what roles do you think the agency should pursue in the future?

(A) I think it is critical to clearly recognize what the Copyright Act says KCOPA is. I want to repeat here part of what I said as New Year's greetings for the first copy of <C STORY> in 2017. 『Our cultural ecosystem, based on copyright institutions, can improve and develop by "protecting the rights of authors and neighboring rights" and also by "promoting fair use of works." That's what Article 1 of the Act says. Put another way, although protecting right owners is important, promoting users' interests represented by 'fair use' is also significant. Secretary General Francis Gurry of World Intellectual Property Organization (WIPO) demanded in a speech delivered in Sydney, "Copyright should be about promoting cultural dynamism, not about preserving or promoting vested business interests," pointing in the same direction as I did.』 Along this line, the core of KCOPA's roles should be in promoting both right protection and fair use in order to bring innovation and vitality to our cultural ecosystem.

#### @ Do you have any last words to say for the readers of C STORY?

(A) <C STORY> publishes a lot of highly useful writings and information regarding copyright policies. I hope the webzine will keep its readers up-to-date and ahead on copyright laws. On top of it, I want to add that a sound cultural ecosystem is based on a virtuous circle of well-protected copyrights. It should be noted that the relationship between copyright holders and content users is not just that of conflict, but also a complementary one, because today's users can be tomorrow's right owners. Promoting the virtuous cycle of copyright is highly meaningful because it can nurture an environment in which using someone else's content can plant a seed for creating new content of your own. (\*)

#### **Profile of Chairman Park Sung-ho**

- Professor, School of Law, Hanyang University, Attorney
- a member of Expert Appraisal Committee, Korea Copyright Commission
- Vice President, Korea Copyright Law Society (former)
- a member of E-Commerce Mediation Committee (former)
- a member of Internet Address Dispute Resolution Committee (former)





**KOCPA REPORT\_Live Scene of Copyright Protection** 

# Live Scene of Copyright Protection

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Learning the value and significance of copyright

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## **Sharing Experience and Knowledge on Copyright Protection**

#### **Visit from CIPITC**

The study tour band from Thailand including members of the country's Central Intellectual Property and International Trade Court paid a visit on March 12<sup>th</sup> to KCOPA to take lessons for better copyright protection in Thailand from the agency's copyright expertise and experience including Copyright OK Designation program. The meeting provided a basis for KCOPA to build a future partnership for stronger copyright with the country.

#### **Guests from CIPITC visit KCOPA**

A visiting party from Thailand made a 7-day study tour to Korea (from 8<sup>th</sup> March to 13<sup>th</sup> of the same month) as part of CIPITC Count Young Award, an event attended by students from eight Thai law schools and sponsored by the country's Department of Intellectual Property and telecommunication companies. The group included members of the Central Intellectual Property and International Trade Court of Thailand (CIPITC) and recipients of the award.

CIPITC is a special court established in 1997 with nation-wide jurisdiction to judge on intellectual property and international trade cases. Plaintiffs or defendants who do not accept CIPITC's rulings bring their cases directly to the country's Supreme Court without having to get a second decision from a court of appeals. The special court currently consists of President of the court, two Vice Presidents, 23 presiding judges and 144 associate judges, dealing with criminal and civil cases concerning intellectual property such as trademark, copyright or patent.

The study tour band paid a visit to Korea Copyright Protection Agency (KCOPA) on March 12<sup>th</sup>. KCOPA shared with the guests from Thailand the agency's accumulated knowledge and experience regarding copyright protection, giving an overview of the agency itself and Copyright OK Designation program.



#### Vising event in a warm mood

"Sawadee Khap!"

The visiting event of Thai guests to KCOPA, starting with a cheerful Thai greeting by Yoon Young-suk (Protection Promotion Team) as the meeting's host, lasted for two hours in a friendly mood. Director Kang Dae-oh welcomed the visitors by saying "I'm well aware that CIPITC comprises top authorities of intellectual property in Thailand. I extend whole-hearted welcome and gratitude to you who have come all the way from the country of Golden Compassion," adding "I hope that this visit will provide an opportunity for Thailand and South Korea to build partnerships with regard to copyright protection."

Suwit Rattanasukon, presiding judge of CIPITC and leader of the study tour, said "21 people in total have come here from Thailand for today's visit, including three presiding judges, eight associate judges, three government officials, five award winners, and two travel guides." He went on to explain the purpose of the visit by saying, "I appreciate your warm welcome. I sincerely hope that today's meeting will be a chance to share Korea's knowledge and experience on copyright protection."

After exchanging greetings, the meeting shifted into an overview of KCOPA and its Copyright OK Designation program. Kim Sun-hwa (Protection Promotion Team) introduced, as the meeting's presenter, the audience to the agency by saying, "KCOPA was established as an affiliated organization of Korea's Ministry of Culture, Sports and Tourism in September 2016," adding, "Despite its short history, the agency deserves credit for serving as a long-time copyright protector because it was born through the integration of two existing copyright-related institutions." Kim went on to elaborate on Copyright OK Designation, one of the agency's key programs.

Kim said "Copyright OK Designation began as a program entitled Clean Site in 2009. Currently, 215 websites and 968 businesses are designated as Copyright OK under the program," adding that aside from the designation, the agency is providing consulting with regard to copyright protection.

#### Sharing knowledge and experience on copyright

Toward the end of the visit, there was a Q&A session about KCOPA and Copyright OK Designation. The eager audience from Thailand posed many questions on copyright-related cases which can be applicable to their country.

One participant asked about the application process for a Copyright OK certification and about the agency's target number of designations. It was answered to the question that, after accepting applications through online and offline channels, an evaluation committee consisting of external experts assess the candidates and designate qualified ones as Copyright OK. It was also added that KCOPA does not have preset target numbers of certification. To the question whether lack of failures to obey the relevant laws of a particular applicant automatically leads to its Copyright OK certification, a response was given as follows: Lack of illegality is undoubtedly a pre-requisite for attaining a Copyright OK certification because it is issued by a public agency.



 $\blacktriangle$  visiting party from CIPITC listening carefully to a KCOPA staff member

▼ group picture of KCOPA employees and guests from CIPITC



The visit of Thai intellectual property experts was a good chance for KCOPA to promote its advanced copyright protection programs and to share its expertise and know-how.

Designation process, however, goes a step further by examining how copyrights are being protected in the candidate's activities such as distribution and also by estimating potential harms of the services provided by the applicant. Copyright OK Designation is a channel through which KCOPA tries to encourage and praise copyright protection efforts, far from being a way to flex the agency's bureaucratic muscles. The designation also provides a chance for Koreans and travelers to Korea to safely purchase genuine products. Copyright OK policy in Korea may also positively influence the way Thai travelers to Korea think about copyright issues.

There were also a lot of inquiries concerning software copyright protection in Korea. One participant asked, "Many copyright issues in Thailand come less from cultural products than from construction software, because the latter tend to be prohibitively expensive in the country. How is Korea going about tackling such problems?" To this, a reply was given as, "Korea's small businesses, just as Thai counterparts do, have difficulty obtaining costly software. KCOPA has been providing them with consulting on efficient software management and has also tried, in concert with software owners, to figure out ways to reduce cost burdens of purchasing software."

The visit of Thai intellectual property experts was a good chance for KCOPA to promote its advanced copyright protection programs and to share its expertise and know-how. The Thai guests expressed special gratitude for a comment by Director Kang that any data or materials about copyright protection owned by KCOPA will be readily provided to CIPITC upon request. CIPITC's efforts to find lessons applicable to Thailand from KCOPA's experience presented a possibility of developing partnerships between the two country for stronger copyright.



## **Global Cooperation for Stronger Copyright Protection**

WIPO-MCST-KCOPA Inter-regional Workshop on Copyright enforcement 2018

written by editorial department pictures taken by Han Sang-hun



▲ group picture of WIPO-MCST-KCOPA Inter-regional Workshop on Copyright enforcement 2018

WIPO-MCST-KCOPA Inter-regional Workshop on Copyright enforcement 2018 was held at Seoul office of KCOPA with goals of raising Korea's status in global copyright society, and on improving expertise of developing countries in copyright protection so that a firm groundwork could be laid to protect Korean-wave content in those nations. During the five days of workshop (from April 30<sup>th</sup> to May 4<sup>th</sup>), Korea's copyright laws and protection systems were presented to participants in charge of copyright policies in developing economies, and discussions were conducted regarding solutions to strengthen copyright protection through cooperation among participating countries

#### Workshop to improve expertise in copyright protection of developing countries



At 11 o'clock on April 30<sup>th</sup>, a welcome address from Moon Young-ho (Director General, Copyright Bureau, MCST) opened the workshop. Mr. Moon said, "The workshop was started out of a common belief that a global cooperation network is a must for effective copyright protection at a time when national borders are becoming meaningless in creation and enjoyment of copyrighted works. Recently, the Korean government has been making a lot of efforts to organize inter-departmental cooperation to better protect online copyrights of various content including webtoons (Korean webcomics), broadcasts, films, online games. In this light, online copyright infringements cannot be effectively tackled by individual governments, which is why cooperation is absolutely necessary between countries all over the world," adding, "I hope this workshop will provide an opportunity for the participants to share their concerns about copyright protection issues and also ideas for solutions."

#### Necessity of cooperation between countries to nurture a sound copyright ecosystem

Following Moon's address, Yoon Tae-yong, President of KCOPA, delivered appreciative remarks to the visitors from nine countries. He said, "This year marks the 7<sup>th</sup> occasion of the Workshop, and it has provided significant opportunities for 119 copyright protection enforcement experts from 31 countries to share their experience and wisdom," stressing, "I strongly hope that this workshop can help create a sound copyright ecosystem which can thrive under the new distribution environment and technological changes." He also said, "Just as printing technology gave birth to the concept of copyright, making good use of digital environments that come with the Fourth Industrial Revolution can provide a turning point toward maximizing the values of content and the importance of copyrights," adding, "I hope that this workshop will serve as a room for sharing experiences and new information and even for laying the groundwork for tight cooperation."

Lim Won-Sun, Chairman of KCC, stressed, "With the advent of the Fourth Industrial Revolution, copyright infringements are growing increasingly diverse and subtle in form. Therefore, the counter-measures against







▲ workshop in session

▲ Yoon Tae-yong, President of KCOPA

the violations must become more refined and sophisticated," adding, "That is why this workshop has so much weight for sharing experiences of different countries and discussing solutions."

Tobias Bednarz, Legal Officer of Building Respect for IP Division in WIPO, and Roger Kampf, Counsellor of Government Procurement and Competition Division in WTO, also stressed the importance of the workshop by explaining that global cooperation is the key to copyright protection.

#### Sharing success stories of copyright protection from Korea and other advanced countries

After the opening ceremony, the workshop proceeded into the main part. The first day, April 30th, focused on copyright protection systems of Korea and other advanced countries, and their current developments. Presentation sessions began with a lecture by Legal Officer Tobias Bednarz of WIPO on 'Strategic Goals of WIPO.' He elaborated on WIPO's strategic objectives, emphasizing the importance of international cooperation for building higher respect for Intellectual Property.

After the talk about WIPO's aims, Kim Jwa-Hyun (team leader, Research Team, KCOPA) delivered a presentation on 'Value of Copyright and the Contribution of Creative Industries to the Economy.' He took the examples of the United States and other advanced economies, stressing, "The more advanced a country is, the more people creative industries of the country hire. The larger workforce translates into greater economic effects of creative industries in the economy." He went on to explain about the efforts made in Korea to enhance the values of copyright by projecting pictures that show at a glance how the notorious centers of illegal content transactions in Korea, such as electronics markets or highway service areas, have drastically changed in the last decade. After Kim's presentation, participants from developing economies posed a series of earnest questions, showing their keen interest in Korea's strategies to protect copyright.

Karol Kościński, director of Intellectual Property Department in the Ministry of Culture and National Heritage of Poland, spoke on 'Current Developments in International and European Copyright Law.' For a deeper understanding of his audience, he explained how copyright laws have changed with time around the world. And then Lee Ji-in (Policy Specialist at MCST) briefly introduced the audience to 'Copyright Enforcement System of the Republic of Korea.'

Lee Tae-jin (Head, Online Protection Team, KCOPA) spoke as the last presenter of the day on 'Anti-Piracy Activities Undertaken by KCOPA.' He explained, "Korea's system is equipped with a variety of tools including recommendations of correction, access blocking, cooperative measures between private and public sectors, investigation support, and online monitoring."

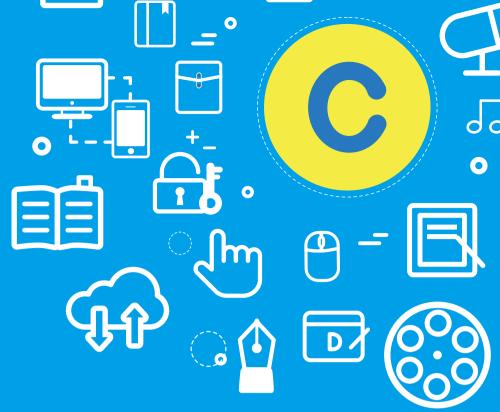
From May 1<sup>st</sup> to 4<sup>th</sup>, sixteen presentations were delivered with three categories of subject: first, enforcement of intellectual property including copyrights and the relevant international cooperation; second, civil, criminal and other related legal measures against copyright violations; and third, border measures and online copyright enforcement. Heated conversations were exchanged while sharing each country's experiences, related information and ideas for solutions among participants in charge of copyright policies of their respective countries.

Speakers from outside of Korea include Tobias Bednarz (Legal Officer, Building Respect for IP Division, WIPO), Roger Kampf (Counsellor, Government Procurement and Competition Division, WTO) Roger Hughes (former judge of the Federal Court of Canada), Karol Kościński (director of Intellectual Property Department, Ministry of Culture and National Heritage of Poland), Kwee Tiang Ang (regional director for Asia Pacific, IFPI). Meanwhile, speakers from Korea include Lee Kyu-hong (Presiding Judge, Patent Court of Korea), Oh Min-jae (Public Prosecutor, Seoul Central District Prosecutors' Office), Kang Shin-taek (Director, Planning and Coordination Department, Trade-related Intellectual Property Rights Protection Association), Son Bo-young (Managing Director, Motion Picture Association, Korea) and Kim Geun (Country Manager, Business Software Alliance).

#### Korea's enhanced status in the world of copyright protection

The Workshop of this year showed that Korea has acquired a considerable significance in the field of copyright protection, with Seoul having transformed from a content-importing copyright infringer into a content-exporting copyright owner. Notably, every time Korean speakers presented about the country's systems and strategies for copyright protection, audiences showed keen interest in and a strong will to model after such tools as the Special Judicial Police of Ministry of Culture, Sports and Tourism, large-scale planned investigations into operators of major piracy websites outside Korea, Participants who are in charge of copyright policies in their own countries showed how copyright is getting more and more valuable through their serious efforts to share their experiences and information and to discuss solutions. High hopes are put on the workshop, which will continue to be held every year, that it will help create a robust copyright ecosystem in which countries around the world can communicate with each other and share their information and experiences on policies and cases regarding copyright protection.









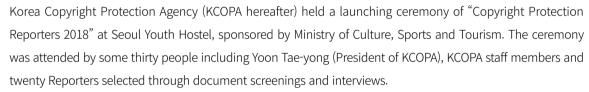
- ① Copyright Protection Reporters 2018 on workshop
- ② Copyright Protection Reporters 2018 on a launching ceremony

### Reporters to raise copyrightconsciousness through various content

**Copyright Protection Reporters 2018: Launching Ceremony and Workshop** 

written by editorial department pictures taken by Seo Hun

Korea Copyright Protection Agency held a launching ceremony and a workshop for Copyright Protection Reporters 2018 at Seoul Youth Hostel on May 17<sup>th</sup> and 18<sup>th</sup>. The Reporters will serve to raise public awareness on the importance of copyright protection by producing a variety of online content based on field research of copyright protection. Twenty college students have been chosen through document screenings and interviews and they will serve until November.



President Yoon greeted the Reporters with a welcome address by saying, "I extend whole-hearted welcome to you, our proud Copyright Protection Reporters. I am truly happy to meet you who are filled with keen interest and passion for copyright issues." He went on to say, "Increasing easiness with which to access a variety of content in our everyday lives risks underrating or devaluing the significance or worth of content," stressing, "The circumstances require advancement in our copyright protection awareness that can go hand in hand with such honorable titles as the motherland of Korean Waves or a Cultural Superpower. He also said, "Your mission is helping people to open their eyes to copyright protection so that they can use content in the right ways and take part in protecting copyrights," adding, "I hope you, as Reporters, fully express your talents to produce helpful stories and interesting videos that can help spread keen awareness of copyright protection throughout our society for the next seven months."

#### **Copyright First!**

Following the welcome speech, Kim Sun-joong and Kim Yoo-jin, as representatives of the Reporters, took an oath by reading aloud, "We will take pride as Copyright Protection Reporters to set an example in appreciating copyright, and will achieve the best results through building a teamwork with mutual respect." After the oath, the Reporters demonstrated a card-section performance together with President Yoon on stage. They held cards that say phrases like "Copyright Protection Reporters 2018," "Piracy Out," "We will protect our cultural







- $\ensuremath{\mathfrak{B}}$  Kim Sun-joong and Kim Yoo-jin taking an oath, representing the Reporters
- ④ Kong Hye-min at meeting with previous Reporters
- ⑤ mid-workshop team introduction with unique ideas
- 6 Kang Tae-suk providing tips for blogging
- ? Reporters in the middle of capability-enhancing workshop

content," or "Use Genuine Products!" When President Yoon called, "Copyright!" the Reporters called back, "First!" Then everyone shouted "Let's go!" with their hands up in the sky.

Jo Hyo-min, an intellectual property undergraduate at Kyong-gi University, said in an interview after the ceremony, "I have been studying copyright in Department of Intellectual Property of the college, which naturally led me to get interested in copyright protection issues. I had thought about getting a job at KCOPA after graduation when I came to know about the Reporters recruitment. So, I signed up for it," adding, "I feel this opportunity to be part of the Reporters will give me a definite goal in my life. I will do my best, as a Reporter, to develop content that will help raise public awareness of copyright protection for the next seven months. Choi Yoon-jeong, a public administration major at Kyong Hee University, said, "It is a rare occasion for public organizations to recruit Reporters, and I'm thrilled to have been chosen as a Copyright Protection Reporter of KCOPA," adding, "When it comes to support for the Reporters, private companies have much to be desired. On the contrary, KCOPA is very different, and it's been paying a lot of attention to us, with President Yoon coming to the launching ceremony and encouraging us. I look forward to my activities as a Reporter."

#### Workshop to enhance job capabilities

The launching ceremony began a two-day workshop, which had the purpose of enhancing the Reporters' job capabilities during the task period. It contained a variety of programs, including an overview of KCOPA, training sessions on copyright and content production, and cultural experiences.

The first day of the workshop, May 17<sup>th</sup>, began with an introduction of KCOPA, given by Hong Hoon-gi (Team Leader, Strategic Planning Team). Mr. Hong provided a compact description of subjects including an overview of KCOPA, and systems, visions, missions and major activities for copyright protection. Then Jeong Seok-

chul (Director, Online Protection Bureau) took his turn to deliver a training session with the subject 'Tasks of Reporters and Copyright.' Director Jeong took various cases for example to show what constitutes copyright infringement, and provided tips for producing stories or videos. The last lecture in the first day of workshop was on how to write news stories, given by Hwang Mi-rae (reporter, Punmedia). Reporter Hwang instructed the audience in a variety of information on writing stories, ranging from the reasons why writing is so hard to helpful pieces of know-how on interviewing people, writing good sentences for a story, and writing logically. Training sessions continued in the second day of the workshop. The first session consisted of a meeting with Jeong Seung-ho and Kong Hye-min, awardees of Best Activity Prize among the first group of Reporters. They shared their experiences they had during the previous year as the Reporters with this year's recruits. Their focus was on how to make best use of this chance to serve as Reporters and know-how on producing content. The last lecture of the workshop was given by Kang Tae-suk (CEO, Bigstone), also known as "Keun Dol-gun," a power blogger with some 14,500 subscribers, providing tips for writing blogs. He spoke on ways to maximize exposure to portal websites for the benefit of the Reporters who have to post at least two stories per month online. Kang said, "What matters most is creating blogs that you can enjoy yourself, which requires creating unique content of your own that triggers communications and exchanging ideas with people through blogs," adding, "You need to write something that can pop up on a screen when someone searches online for 'intriguing stuff to read'."

The two-day launching ceremony and workshop for the Copyright Protection Reporters 2018 provided a significant chance for reporters to grow into copyright protection experts. High hopes are put on the activities of the second group of Reporters who will produce a variety of online content such as useful stories and exciting videos to help develop public copyright-consciousness until November of this year.



## Learning the value and significance of copyright

1st Copyright Class for Youth 2018

written by editorial department pictures taken by Seo Hun

Korea Copyright Protection Agency held Copyright Class for Youth 2018, a copyright education event for children, for some 200 fifth graders of Nu-Won Elementary School in Dobong-gu, Seoul, on 23<sup>rd</sup> May. The event, consisting of fun games and explanatory sessions of copyright concepts custom-made for elementary schoolers provided a chance for the young participants to ponder for themselves on the value of copyright and the importance of its protection.



Korea Copyright Protection Agency (KCOPA hereafter) has held Copyright Class for Youth, a software copyright education program for higher-grade elementary school students, since 2007. The event, taking place this year for the 12<sup>th</sup> time since its inception in collaboration with Korea Software Property Right Council, has enlightened more than 26,000 students from some 160 grade schools across the country. The class of this year will take place from May to November at ten schools selected from the educational institutions that applied from 26<sup>th</sup> March to 6<sup>th</sup> April. Especially, this year's event will visit one or two regional school branches whose students couldn't enjoy the program due to the lack of necessary facilities and personnel.





- ① group picture with Nu-Won Elementary's fifth graders
- ② picture taken after an oath of copyright protection
- ③ speed and OX quiz contest

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Using creative productions without due payment is a major hindrance to the creation of great works.

Therefore, it is important to learn at an earlier stage of life what copyright means and how to protect it. I hope today's copyright class will serve as a chance for you to become aware of how important protecting copyright is and also to have aspirations to become creators in the future.

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Copyright Class for Youth has been gaining popularity with time because it provides copyright education tailored for elementary schoolers about the right way to utilize software and the concepts of copyright in a manner that even children can fully understand. Developing a copyright-consciousness at an early age will help young students grow into sensible content users, and also will help protect their aspirations to become creators such as authors, musicians, developers or cartoonists.

#### Awakening to the importance of copyright protection

The first class of this year was held at Nu-Won Elementary School in Dobong-gu, Seoul, on 23rd May for some 200 fifth graders. Yoon Tae-yong, President of KCOPA, started the class by addressing the young participants that using creative works without due payment kills the environment in which great works can be created. Therefore, it is very important to learn from an early stage of life what copyright means and how to



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protect it. He announced the significance of the class by saying "I hope today's copyright class will serve as a chance for you to become aware of how important protecting copyright is and also to have aspirations to become creators in the future."

The first event of Copyright Class for Youth 2018 was delivered in a fun recreational style, led by Ahn Sangtae, a comedian who has served as a special copyright lecturer since 2010. The class mainly consisted of explanations of copyright protection concepts, taking an oath of copyright protection, and solving speed and OX quizzes on copyright, lasting for about 90 minutes in total. Each sub-program was designed to contain

intriguing stuff (mainly case-type materials) which can be fully understood and enjoyed by elementary schoolers, and to help the young students think for themselves and recognize the value of copyright and the importance of copyright protection. This year's first class tried to help students achieve a deeper understanding of the difficult copyright concepts by providing program participants in advance with a specially produced cartoon-style teaching material entitled "Read my lips: I love you (written by Lee Ju-han, illustrated by Oh In-gyo)."



#### **Webtoon Conference**

written by editorial department pictures taken by Lee Jeong-min

On August 30th, a conference was held at the convention hall of the National Assembly Building with the subject "Eradicating Foreign-based Webtoon Piracy Websites and the Future of Korea's Webtoon Industry." The discussion was co-hosted by Reps. Son Hae-won, Wu Sang-ho and Yoo Eun-hae, lawmakers of the Democratic Party, and was cosponsored by Ministry of Culture, Sports and Tourism, Korea Copyright Protection Agency, Korea Manhwa Contents Agency and Korea Creative Content Agency. It produced a variety of ideas to tackle the 'balloon effects' of webtoon piracies mushrooming after the shutdown of 'Bamtoki.'

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Websites and the Future of

**Korea's Webtoon Industry** 

Eradicating Foreign-based Webtoon Piracy

#### Webtoon piracies 'ballooning' after the shut-down of Bamtoki

Arresting operators of Bamtoki, one of the biggest online distributors of pirated webtoon (Korean webcomics) materials in Korea, is creating so-called balloon effects, with users flocking to similar websites. Alarmed by the unexpected turn of events, those involved in Korea's webtoon industry gathered to discuss how to eradicate illegal websites.





- ① Part Two of the conference consisted of discussions for measures against foreign-based webtoon piracies
- 2) picture of the event's organizers and hosts including Reps. Wu Sang-ho and Yoo Eun-hae

The Part One of the conference mainly focused on understanding the range and magnitude of the balloon effects generated after the seize of Bamtoki operators. The first presenter, Kang Tae-jin (CEO, Webtoon Guide) said, "After Bamtoki was shut down, the traffic of a similar illegal website (let's call it "H") grew ten times in July compared to that in June. Another illicit website (call it "A") experienced 4.4 times of growth in traffic," adding, "About 54% of the traffic that had visited Bamtoki is now travelling on the balloon effect into other similar illegal websites."

Kim Dong-hoon, cartoonist, talked about cases of how creators have been suffering from illicit websites. He said, "Only two of the seven creators that we interviewed experienced increased incomes after the arrest of Bamtoki operators, and five of them are receiving treatments for depression," stressing, "More thorough examinations must be carried out to understand what is really going on and to estimate how much damages have been made. Also imperative is to help creators to have their mental health checked and to let them get some help if needed."

#### Government's efforts to swiftly block access to piracy websites

Part Two of the convention was devoted to discussing how the Korean government has developed and implemented counter-measures against piracies taking place on illegal website and the future plans it has. The first presenter, Lee Dong-hyeok (Deputy Director, Copyright Protection Division, Ministry of Culture, Sports and Tourism), said, "The three months from May to July were set aside for intensive monitoring over piracy websites based outside of Korea, which resulted in the shut-down of thirteen foreign-based websites including Bamtoki, Zangsisi, and TorrentKim (one of the biggest torrent websites in Korea), and in the arrest of those running eight websites of the blocked services," stressing, "the intensive regulations gave a signal to current

and potential operators that websites based outside Korea are not immune to anti-piracy measures, and the efforts will be increasingly stepped up for the upcoming two or three years." He also added, "A revised bill of the Copyright Act is pending in the legislature. I hope the bill gets enacted as soon as possible so that it can facilitate rapid blocking of illegal websites."

After the presentation of Deputy Director Lee, there were discussions on whether blockchain technology, which is currently in the limelight, could be utilized for safe distribution of lawful webtoon materials. Baek Seung-ik (CEO, Battle Entertainment), said as the second speaker, "Blockchain technology cannot solve every piracy of webtoon materials. The technology, however, can make possible transparent calculation and distribution of incomes, and the non-existence of mid-distributors under the technology will save fees spent for distribution activities, thereby giving larger portions of profits to creators." Baek Myeong-hoon, Chief Information Security Officer of Streami, said in a discussion, "It is imperative to put pressures on advertisers that fund illegal websites. It is one of the methods that were employed to shut down the notorious SoraNet. The companies that put ads on illegal websites are mostly Korean ones, so checking and reporting them will help solve a lot of problems."

#### **Enacting the revised bill of the Copyright Act comes first**

The last presenter of the conference, Lee Young-uk, both a legal attorney and a cartoonist, spoke about legal and systematic assistance to protect webtoon copyrights. He pointed out that the revised bill of the Copyright Act, pending in the National Assembly, added 'access blocking' to the list of orders that can be issued to online service providers by Minister of Culture, Sports and Tourism. He went on to explain, "The bill, when enacted, would make it possible to issue an 'assess blocking order' based on a review by Copyright Protection Deliberation Committee in Korea Copyright Protection Agency (KCOPA), without going to Korea Communications Standards Commission (KCSS) for further examination. Then access to illegal materials could be blocked within two weeks." He also argued that the introduction of punitive damages should be considered with regard to copyright-related piracies, and punishments should be more severe on company-type piracy websites or providers such as Bamtoki.

Jung Hyun-soon (Team Leader, Copyright Protection Deliberation Team, KCOPA) agreed with Lee on his opinions about the revised bill, saying, "Webtoon materials have relatively small number of cuts, and they are consumed quickly. These features, when the materials are spread over piracy websites based outside of Korea, make their copyright protection effectively impossible unless the violations are countered with rapid issuing of access blocking. The bill would shorten the time it takes to proceed from monitoring to access blocking." Jung also stressed that the access blocking stipulated in the bill is not a new regulation because it just relocates from the powers of KCSS to those of KCOPA.

The convention showed the government's strong will toward making continued efforts and organizing cooperation between related government agencies to eradicate webtoon piracies, which will have positive impacts on Korea's webtoon industry.



## **Blockchain:**The Future of Copyright Technology

#### **International Copyright Technology Conference 2018**

written by editorial department pictures taken by Kang Tae-gyu

ICOTEC 2018, hosted by Ministry of Culture, Sports and Tourism and jointly organized by Korea Copyright Protection Agency and Korea Copyright Commission, took place on November 7<sup>th</sup> at The-K Hotel Seoul (in Yangje-dong, Seocho-gu, Seoul). The conference, the eighth event since 2011, invited copyright experts from all over the world including Switzerland, Germany, the US, China and Korea to have an opportunity to share ideas on how to apply blockchain to copyright protection technology under the subject of 'Blockchain: The Future of Copyright Technology.'

#### The core of future copyright distribution: Blockchain

International Copyright Technology Conference (hereafter ICOTEC) 2018 on 7<sup>th</sup> November went successfully, attracting some 500 participants from companies that handle copyright technologies and copyright-related academic circles and organizations. The conference, the eighth occasion since its inception, provides a platform to introduce new copyright technologies, and for world's experts to share their opinions on current copyright issues. This year's convention mainly talked about blockchain, recently considered key technology of copyright distribution, under the subject 'Blockchain: the future of copyright technology.'

Moon Young-ho, director of Copyright Bureau in Ministry of Culture, Sports and Tourism, said in a greeting speech, "Blockchain technology is what everyone has been talking about this year. The technology, which will









- ① the 7<sup>th</sup> ICOTEC Awards
- ② Ana Lorena BOLAÑOS DE PACHECO, Senior Program Officer of WIPO, delivering a speech
- ③ Rahul Rumalla, co-founder of Paperchain
- (4) keynote speech by Prof. Park Sung-Jun (director of Blockchain Research Center, Dong-guk University)

play a key role in the Fourth Industrial Revolution, is generating significant changes in copyright protection and content distribution," adding "I hope that today's conference will provide an opportunity to predict what blockchain technology will bring to copyright technology industry in the future and to share ideas vigorously." Yoon Tae-yong, President of Korea Copyright Protection Agency (hereafter KCOPA), also said in opening remarks, "Today's convention will provide a chance to share ideas on empirical services based on blockchain technology and current copyright technology issues, and also a chance for world's experts to discuss the development of copyright industry."

A keynote speech was delivered by Prof. Park Sung-Jun, director of Blockchain Research Center in Dong-guk University, under the subject 'Blockchain Paradigm and Copyright Protection,' moving the conference into its main part. He said, "People are talking about blockchain as if it was a matter of distant future. They are wrong. The technology is right around the corner. It can reach us even today or tomorrow," adding, "It is of utmost importance to promote blockchain technology in every industry including copyright-related fields to become leaders in the blockchain world." After the keynote address, Lorena BOLAÑOS, Senior Program Officer of Copyright Development Division in World Intellectual Property Organization (WIPO hereafter), remarked as a guest speaker with the subject 'Evolution of the international legal framework of copyright and related rights: WIPO's contribution.' Giving an overview of the history of copyright, she said "Copyright has promoted creativity through technological advances. The new technologies, however, then enabled loose distribution of copyrighted materials" adding, "Technologies present us with both opportunities and challenges."

#### **Discussing Blockchain and copyright**

The first session covering 'Cases of copyright utilization and protection technology' was presided over by Prof. Kim Jong-Won of Sangmyung University. In the session, Jan Wilkens (CEO, COMESO) presented on 'Upcoming challenges of global copyright protection,' Prof. Kim Chul-Yun of Sookmyung Women's University on 'Examples of the application of artificial intelligence to activate the use of copyrights,' Michael Schlesinger (legal counsel of Motion Picture Association of America) on 'Techniques for protecting and activating copyright,' and Paek



Live Scene of Copyright Protection 2018 KCOPA REPORT 50 | 51

Hoon (executive director, MINDs Lab) spoke on 'A deep-learning based video copyright recognition system robust to copyright avoidance methods.' Notably, Jan Wilkens said, "Different people have different ideas about illegal downloading. Uploaders make money from illegal content, so they are not friendly to attempts to block illegal content. Users are also not too enthusiastic about such attempts because they have been able to download content almost at no cost because of the existence of illegal content. Companies tend to ignore copyright laws because complying with them is very costly. In the final analysis, everyone, except copyright owners, benefits from illegal content. To break this structure, a society must take a strong stand against illegal content."

Paek Hoon, executive director of MINDs Lab, who has been working with KCOPA to develop a video copyright recognition system based on deep-learning, said, "It became possible to recognize a variety of factors describing a particular scene such as conversations, objects, writings, marks, faces and their changes with time in a video. Thanks to the recognition technique, we can now catch various illegal video content that employ copyright avoidance methods."

The second session, presided over by Prof. Kim Hyeong-Jung of Korea University, generated diverse discussions on 'Blockchain and Content Distribution.' In the session, Xiaojun Tian (Secretary General, Copyright Research Center, Tencent Institute) presented on 'A Blockchain Management approach of the Copyright industry,' Jung Byeong-ok (Team Leader, Service Development Team, DigiCap) on 'Blockchain-based digital content protection application technology,' Rahul Rumalla (co-founder of Paperchain) on 'Unlocking the full potential of blockchain for music copyrights,' Kim Tae-Won (CEO, Glosfer) on 'Real-world value of Blockchain,' and finally Park Dong-Hyui (General Manager, Asia Innovations Korea) spoke on 'Mass consumer adoption of blockchain and copyright.'



Notably, Xiaojun Tian stressed, "Currently, blockchain technology and its concepts are still not mature enough, and sufficient tests have not been made about their applicability to business. Blockchain technology, however, has seeds of innovation in it, so it deserves constant attention," adding, "Blockchain is potentially lucrative in areas such as distribution, asset management, operation and content development." Rahul Rumalla said, "I think blockchain can help create a new economic and market structure. Copyright of digital content such as music files, for example, can be protected more safely through blockchain technology with its transparency and security," adding, "The beauty of blockchain technology lies in the decentralized system that it brings through connection



- ⑤ Xiaojun Tian, Secretary General of Copyright Research Center, Tencent Institute, giving a presentation
- 6 Michael Schlesinger, legal counsel of Motion Picture Association of America
- TKCOPA running a booth for Copyright Open Counseling
- ® Business House Calls

between everyone involved. For this reason, the technology is needed for current copyright industry that requires control and permission from a network."

The third session, presided over by Prof. Kim Cheol-Hwan of Hanyang University, provided a place for discussion on the subject 'The Role and Future Direction of Blockchain for Copyright Technology.' Rahul Rumalla, Kim Tae-Won and Park Dong-Hyui, who were presenters in the previous sessions, exchanged their ideas as discussion panels on blockchain-based copyright distribution technology and its commercialization. They went on to predict the future direction of blockchain as copyright protection technology.

#### The 7<sup>th</sup> ICOTEC Awards and additional events

The 7<sup>th</sup> ICOTEC Awards ceremony was held before the main conference began. The awards are given to individuals or companies who made significant contributions in advancing copyright technology. In this year's ceremony, Minister of Culture, Sports and Tourism Award went to Kim Young-Mo (professor, Soongsil University), WIPO Award to Park Ji-Hyeon (senior researcher, ETRI), Presidential Council on Intellectual Property Award to Kim Seong-Hwan (professor, University of Seoul), President of KCOPA Award to An Sangpil (copyright specialist, Munhwa Broadcasting Corporation), Chairman of Korea Copyright Commission Award to Park Kyeong-Su (senior researcher, SCTECHONE), and Chairman of Korea Federation of Copyright Organizations Award went to BeyondTech.

The conference venue opened booths of thirteen copyright-related technology companies, providing a rich business environment where copyright technology firms can share ideas, and laying the groundwork for upgrading and invigorating copyright industry. On top of it, the event was even more enriched by additional sub-programs such as 'Business House Calls' or 'Copyright R&D Technology Transfer Presentations' in which explanatory presentations were given on technologies developed by five excellent firms for the benefit of companies who are interested in receiving technology transfers from those with successful copyright-related R&D results.



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# KCOPA in Depth

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## Learning the value and significance of copyright

texts and pictures by Protection Promotion Team



Under the empowerment of the Copyright Law, Korea Copyright Protection Agency (KCOPA) conducts deliberations on online illegal copies and issues recommendations of correction regarding them, and also performs collection and abolition of offline illegal copies. Despite the importance of these actions that correct copyright infringements that have happened, it is also crucial to prevent such violations by raising copyright awareness. For this purpose, Protection Promotion Team (Protection Support Bureau, KCOPA) is implementing a series of Copyright OK Programs to cultivate a copyright-conscious culture and to stave off copyright transgressions.

#### What are Copyright OK Programs?



#### **Copyright OK Designation**

Copyright OK Designation refers to a series of procedure in which Copyright OK Logos are awarded to businesses that are found to sell, distribute or provide content in lawful manners that safeguard online or offline copyright ownership, thereby certifying them as providers of genuine products. The procedure originated from a need of objective and reliable indicators about online and offline service providers as the line gets increasingly blurry between lawful and illegal services, and conflicts get increasingly severe between interested parties over copyright infringements. Copyright OK Designation proceeds after pre-set guidelines. The guidelines are for online or offline service providers which hope for a Copyright OK certification or are trying to find ways to steer their activities toward more lawful directions, elaborating on detailed methods and criteria for providing legal services. The Copyright OK website provides a self-checking service which makes it possible to see whether potential applicants have met standards for Copyright OK Designation application. When a service provider applies for designation, a series of factors are checked to determine whether to certify them as Copyright OK: how faithfully the candidate has followed the designation guidelines, what is copyright protection status of the relevant service, what kinds of copyright protection mechanisms the applicant has introduced and implemented, and what is the overall level of copyright protection efforts made by the candidate and so on. The final designation of a particular provider as Copyright OK is conducted through fair and reliable assessments by the Evaluation Committee which comprises experts in related fields.







▲ 26th Copyright Open Forum (talk concert)

Copyright OK Logos (or marks) are bestowed upon service providers which have been designated as Copyright OK, certifying them as copyright-conscious businesses. A variety of promotional assistance is provided to the Copyright OK awardees for higher brand awareness. The procedure does not stop with giving a certification. Copyright-wise re-assessments through continual monitoring and the operation of Evaluation Committee guarantee the fairness and transparency of Copyright OK Designation program.

In 2017, 152 businesses in total (40 online/112 offline) acquired a Copyright certification. As of 2018, the accumulated number of businesses designated as Copyright OK amounts to 1,183, consisting of 215 online websites and 968 offline stores.

#### **Copyright OK promotion efforts and Copyright Open Forum**

Efforts to organize cooperation between right-holders, businesses and users for stronger copyright include Copyright Promotion Booth, campaigns, and media promotions through newspapers or radio broadcasts. Online promotion endeavors include publishing Copyright OK online newsletters and managing a Facebook page with the aim of raising public awareness of copyright protection. Also, Copyright Open Forum has been operated to provide both college students (majoring in content) who aspire to become creators and general

public with practical knowledge on lawful use of creative works and copyright management. The forum takes a variety of formats, such as lectures or "talk concerts" featuring copyright-related industry professionals or experts invited as presenters. In 2017, the forum took place four times at universities with diverse topics: on 'cartoons and animated films' in Sejong University, 'music' in Yeoju Institute of Technology, 'broadcasting' in Dong-Ah Institute of Media and Arts, and 'law and policy' in Sangmyung University.

#### Providing guidelines to help prevent copyright infringements

There are many cases where copyright owners or online service providers are at a loss how to cope with copyright infringements or legal conflicts. To help solve the problem, Protection Promotion Team is preparing to provide guidelines for preventing online copyright infringements.

Two kinds of guidelines are on the way: firstly, guidelines for stopping reproduction and transmission to help right-holders or online service providers cope more effectively with infringements from illegal copies on the web; secondly, copyright management guidelines for awarders and awardees of service contracts to help prevent copyright-related conflicts and resulting confusions between the contracting parties. Cases discussed in Copyright Open Counseling will be reviewed to prepare additional guidelines for helping copyright owners, content users and sellers to navigate through the complicated copyright protection methods and procedures.

#### **Copyright Open Counseling**

'Counseling and consulting for fair use and infringement prevention of copyright' is being regularly provided to meet the needs expressed through complaints and counseling requests related to copyright protection. Copyright specialist counselors provide answers through telephone, website, or email to questions regarding copyright issues, and they provide face-to-face counseling sessions if necessary. Also, 'fair use and infringement prevention of copyright support group,' comprising experts of six fields including fair use counseling, contract and fair trade, public works management, export and distribution of content, forensics and software, provide custom-made consulting services for a variety of copyright issues. Cases discussed in the various counseling and consulting sessions will be compiled into a counseling case book to be published and distributed in the latter half of 2018.



#### How to use Copyright Open Counseling

- telephone: press '0' after calling KCOPA at +82-1588-0190
- face-to-face: Open Counseling office at 4th floor of KCOPA
- online: click 'copyright protection counseling' in KCOPA website (www.kcopa.or.kr)
- \*\* business hour (telephone/face-to-face): 09:00 18:00 from Monday to Friday (lunch break 12:00 - 13:00)
- \*\* Face-to-face counseling can be provided more efficiently without waiting if you book in advance.



## Digital Forensics Team: CSI Seizing Digital Pirates

written by Digital Forensics Team



There was an impressive scene in <Steel Rain>, the movie that the entire employment of Korea Copyright Protection Agency ("KCOPA") went to watch as a year-end event, in which the character played by Gwak Do-won said, with 'North Korea's No.1 (the leader of Pyongyang)'s smart watch in his hand, "Let digital forensics handle this." What does digital forensics mean, then? There could be as many definitions of the phrase as there are people working for various industries that employ the discipline. However, it generally refers to a series of procedures where collecting, transferring, analyzing and reporting are conducted, in logically standardized steps and methods, on digital storing devices so that the data contained in them can be legally admissible as digital evidence. Put another way, digital forensics is a group of technologies that can be used to seek out evidence of crimes hidden in digital data.

#### What does Digital Forensics have to do with copyright?

Today, digital culture has taken deep root in our everyday lives. We can use a variety of digital devices including smart phones and tablet PCs to enjoy any kinds of digital content, such as films, soap operas, music and webcomics, anytime, anywhere we want. The huge pleasure and convenience come with dark sides of the technology: serious copyright infringements on digital content and escalating damages from the violations.

Notably, copyright infringements are taking increasingly various forms as well as becoming sophisticated, every year, in every possible space where such violations can occur, including torrent sites, streaming websites or online storage services. Digital forensics is gaining importance as a tool that can validate what really happened for the varying forms of copyright infringements. In other words, securing traces of copyright violation from digital data and seeking out the truth absolutely require professional and systematic practice of digital forensics specializing in copyright fields.

#### Laying the groundwork for Digital Forensic Center for stronger anti-piracy endeavors

Investigations to which Digital Forensics Team of KCOPA provided assistance for the previous year alone

amounted to as many as 440 cases. The number during the period from January to the late April this year already reached 168, meaning an elevating demand for the team's service. KCOPA is planning on building a Digital Forensics Center to meet annually amplifying demands for the technology and to tackle digital copyright piracies which are getting increasingly smarter, in a systematic and professional fashion. The center will study advanced forensic sciences and use the knowledge to establish Korea's mid or long-term road maps for scientific investigation and to develop strategies for

for scientific investigation and to develop strategies for tackling new types of piracies.

Digital Forensics Team has recently awarded a research contract to lay the groundwork for the center. It will use the resulting information as basic data for building the center and also in the long run for building an optimal digital forensics system which takes KCOPA's characteristics into account. The center will upgrade the ability of KCOPA, a public agency with unique digital forensics expertise, to protect copyright in a pro-active way, which include monitoring, analyzing, tracking and preventing piracies, and to tackle piracies through scientific investigation.



▲ Digital Evidence Analysis Room (KCOPA)

#### **Overcoming crises facing digital forensics**

Many digital forensics experts talk about its 'crises.' The first category of difficulties originates from an increasing variety of devices to analyze, including laptops, desktops and mobile phones, and amplifying capacities of storing tools. The developments make it difficult to extract data from the various equipment and to examine different kinds of operating systems and files, and also make it much more time-consuming to analyze relationships among data.

The second group of problems come from advances in the Web technology. Email, blogs, Internet communities, or SNS that we use today all the time do not leave digital traces as their older versions did. Part of the reasons behind the modification lies in a heightened sense of personal information protection. In a word, collecting digital evidence is becoming more and more difficult.

Digital Forensics Team of KCOPA is not immune to the hardships. In the middle of the adversities, the team has been providing digital forensic support to the Special Judicial Police of Ministry of Culture, Sports and Tourism ("Special Police") for the enforcement of search and seizure warrants against websites distributing illegal content and for analyzing the data acquired in the process.

Recently, members of the team ambushed in cooperation with the Special Police the home of a piracy website's suspected operator. The door to the house was closed and there were no traces of anyone staying there, with an only exception of a running gauge. There was no way to know what was going on in the house.



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▲ Searching a server for confiscation



▲ Securing digital evidence (information on contracts, etc.)

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Digital Forensics Team of KCOPA is providing forensic support to the Special Judicial Police of Ministry of Culture, Sports and Tourism for enforcing search and seizure warrants against websites distributing illegal content and for analyzing the data.

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With no other options available, the investigator in charge made a phone call to the alleged operator to ask him to open the door. However, the suspect kept telling the officer to wait, saying he was on his way home. After wasting three to five hours trying to persuade the man, with the clock approaching 6 PM, the investigation team suddenly realized that his continued demand to wait in front of the closed door could actually be an attempt to frustrate the team's goal by exploiting the legal restriction of search warrant enforcement after sunset. The moment the possibility of enforcement by force was notified, the door to the house opened. He just kept locking himself in, knowing that enforcing a warrant after sunset is legally limited. In the house, there were five digital devices including a desktop computer, a laptop and hard-discs, from which digital data regarding the piracy website in question were secured by the team, such as database, source codes and web-log information. The process of determining whether the suspect deleted relevant data revealed that he did attempt to destroy evidence by eliminating data reinforcing his criminal suspicion from his devices. Only after restoring and analyzing the erased data could the team leave the crime scene at around midnight.

From the hundreds of thousand pieces of digital data which were copied for checking and digging for possible connections among them, a peculiar source code stood out. A close inspection revealed that a bypass code had been inserted in the Homepage-running programs so that paying customers of the piracy website could download materials without paying any money for ten minutes after they log in. This case was a clear reminder of how powerful a tool digital forensics can be in searching for the truth about a crime.

Digital Forensics Team of KCOPA currently consists of six members, including the leader. Meeting an overwhelming number of requests for digital forensic help, the team members are doing their best without losing their high spirits. Two projects are high on the team's agenda: firstly, building a Digital Forensics Center where intensive research can be carried out to keep up with ever-evolving digital technologies and media for proactive crime prevention, and secondly, developing systematic training courses on digital forensics to cultivate world-class knowledge and skills of the field.

REPORT

#### **Upgrading Digital Forensics capabilities by sharing the latest techniques**

Copyright piracy is evolving in a complex way, taking various forms and creating unexpected mutations. Digital Forensics Team will conduct research for standardizing scientific investigation methods and will carry out case studies to take pro-active steps against piracies. The team will also build stronger cooperation networks with other government agencies such as police or prosecutors' offices with digital forensics functions to share the latest techniques for upgraded capabilities and to establish an integrated anti-piracy system.



# KCOPA: The Center of Copyright Protection Technology

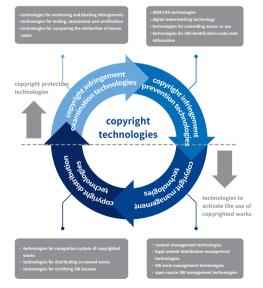
written by Protection Technology Team, KCOPA



In accordance with Article 122-5 of Copyright Act, Protection Technology Team in Korea Copyright Protection Agency (hereafter KCOPA) is carrying out activities to research and develop copyright protection technologies. Current missions of the team include operating Illegal Content Obstruction Program, studying Al-based solutions to stop infringements on video works, building Integrated Control & Observation Platform, and organizing the 8th International Copyright Technology Conference. The team is keeping up with the Fourth Industrial Revolution by putting high priorities on building a smart copyright protection system based on up-to-date technologies, and on researching empirical protection technologies.

#### What do copyright protection technologies refer to?

Creative productions that express human thoughts or emotions are defined as "works," which include literary, musical, theatrical, architectural, photographic, cinematographic, computer program, derivative, and compilation works. Copyright refers to the exclusive rights assigned to such works which can only be enjoyed by the authors of the works, and any kind of technologies needed to protect copyright can be classified as "copyright technologies." Copyright technologies can be grouped into four categories: technologies for infringement examination, management, distribution, and infringement prevention. Technologies for copyright infringement examination and prevention are again grouped together into "copyright protection"



**figure 1.** Copyright technology classification diagram \*source: Korea Copyright White Paper 2015 (Korea Copyright Commission, Nov. 2016)

technologies," and the ones for copyright management and distribution are classified as "technologies to activate the use of copyrighted works."



#### The mission of KCOPA's Protection Technology Team

Markets for distributing copyrighted works have transformed from traditional face-to-face environments to the Internet, and then to mobile smart-device environments. Infringements on copyright are also taking increasingly diverse forms, shifting their main stages from online file storage services to torrent websites, streaming websites, mobile apps, or Social Network Services.

In accordance with Article 122-5 of the Copyright Act, Protection Technology Team in Korea Copyright Protection Agency (hereafter KCOPA) is carrying out activities to research and develop copyright protection technologies. Current missions of the team include operating Illegal Content Obstruction Program, studying Al-based solutions to stop piracies on video works, building Integrated Control & Observation Platform, and organizing the International Copyright Technology Conference. Recently, everyone, both in private and public sector, is talking about IT technologies related to the Fourth Industrial Revolution. KCOPA is trying hard to keep up with the trend by putting high priorities on building a smart copyright protection system which incorporates up-to-date technologies such as Al, and on researching empirical protection technologies. The central mission of Protection Technology Team lies in carrying out a variety of research and development efforts to provide technical support for copyright protection in an increasingly diverse environment where copyrights can be infringed upon.

#### **Automatic monitoring system, ICOP**

Illegal Content Obstruction Program (hereafter ICOP-W) refers to a system which automatically monitors illegally distributed works through file storage services. The program is based on web crawling technology.



figure 2. ICOP CI image

#### What is web crawling?

Web crawling refers to activities to extract desired data from a host of various information existing in web pages.

In 2017, the existing system was overhauled into a more efficient program that monitors and combs through file storage services, which is currently in operation. The upgrade included an improved illegal content search function, and a linking feature to transmit monitoring results over infringements demanding urgent responses to the integrated system that manages comprehensive anti-piracy endeavors.

Illegal content search function refers to automatically performing a series of actions including accessing a particular file storage service, collecting information about materials posted on the service, and capturing images showing the posted materials. The process works just like the way that a real person would to monitor a website for illegal content.

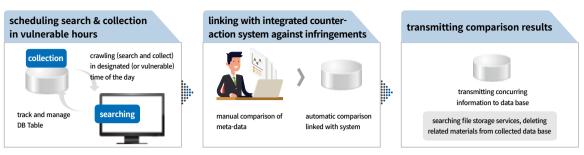


figure 3. Work process of ICOP-W

Recently, various kinds of websites are coming into existence, including torrent, streaming or portal websites, and some new websites run only on mobile devices rather than on PCs. The developments require expanding the range of monitoring for illegal content. 2018 will see the number and kinds of websites for oversight expand. Also, a function for three-step evidence collection will be incorporated so that the system can go from the traditional monitoring instrument to a supporting tool for administrative actions imposed upon online illegal content as provided by Article 133-3 of the Copyright Act. Upgrading ICOP is expected to enable better detection of and more effective response against illegal content.

#### Centralized management of infringement information: Integrated Control & Observation Platform

Integrated Control & Observation Platform (hereafter "Integrated Platform") manages data which are collected or generated in KCOPA, and gathers information to detect copyright infringements in real time. To collectively organize and efficiently analyze information regarding copyrighted works and infringements on them, a BI (Business Intelligence) solution has been incorporated, which provides a firm basis for producing significant results, such as efficiently grasping the current states of illegal content distribution.

Upgrading the system of Integrated Platform is on this year's agenda. Also on the schedule is using public data to automate meta-data collection of copyrighted works and to provide up-to-date information on illegal copies regulation in real time

#### \* What is BI (Business Intelligence)?

BI—short for Business Intelligence—refers to a series of procedure to organize and analyze a huge body of data owned by a company to use in the firm's decision-making.

figure 4. Dashboard of Integrated Platform (anticipated design)



#### Study of Al-based solutions to stop infringements on video works

With environments and forms of using content becoming increasingly diverse, the rates of experiencing illegal video copies are on a steady rise. Notably, distorted variations of original videos such as fidelity-altered, time-lagged or PIP (Picture in Picture) versions, are distributed on file storage services or streaming websites to avoid filtering technologies. Currently, systems adopting AI technology are being developed to tackle these copyright infringements on video works.

In 2017, a research model was designed in which algorithms for pose estimation and object detection were utilized to extract defining features of a particular video, thereby enabling the identification of videos through matching the extracted characteristics. YOLO, an object detection algorithm, was employed to determine parts that show copyrighted materials in PIP videos. Tests for the AI-based system are being conducted for it to learn about transfigured videos by collecting illegal videos on Youtube and using them as learning materials.

#### What is Picture in Picture?

"Picture in Picture" refers to a copyrighted video inserted in other videos or to cases where other videos or images are put in the background of an original video in order to avoid the existing filtering technologies. On this year's agenda are to conduct a study on practical models of smart copyright-protection systems and to seek a possible linking with ICOP and Integrated Platform. Research will be carried out on a variety of technologies that can be used to identify existing videos, including computer vision, signal processing, pattern recognition and machine learning, and also on the technologies' possible applications. Also on the schedule is to enhance the empirical system by expanding the range that the system can identify.

#### The 8<sup>th</sup> ICOTEC to take place on Nov. 7th 2018

International Copyright Technology Conference (hereafter ICOTEC) has provided an opportunity to share ideas and information on the current and future issues facing copyright-related technologies and industries for distribution and protection of works. In 2017, the conference, to keep up with the Fourth Industrial Revolution, focused on discussing cases of Al-based copyright technology and related law enforcement issues.

The 8<sup>th</sup> ICOTEC in 2018 will concentrate on blockchain technology, consisting of the main conference, copyright technology exhibitions, and additional events. The main conference will comprise lectures or presentations delivered by copyright or IT specialists from all over the world. Aside from the conference, there will be promotion booths of companies that handle copyright protection or distribution technologies, and event-type exhibitions. Additional events will include ICOTEC Awards ceremony, copyright R&D technology transfer presentations, Business House Calls, and a symposium by the Society of Digital Copyright. Various promotion activities will be launched about ICOTEC 2018 to raise awareness on copyright protection and the event. Anyone can participate, free of charge, in the event and the conference will take place on Nov. 7th (Wed) at The-K Hotel Seoul (Yangje, Seoul).



### Stronger Regulations Against Illegal Content on Communications Networks

written by Copyright Protection Deliberation Team in KCOPA

Copyright Protection Deliberation Team (in KCOPA) assists Copyright Protection Deliberation Committee in identifying and deliberating on illegal content circulating on communications networks and taking counter-measures such as corrective recommendations or access blocking, with the goal of eradicating online copyright piracies. This article will look closely into the main projects performed by the team to protect copyright and the roles played by the committee.

### Main business of Copyright Protection Deliberation Team in KCOPA

Eradicating illegal content circulating over communications networks constitutes the main business of Copyright Protection Deliberation Team in Korea Copyright Protection Agency (KCOPA). To tackle copyright violations taking place in Korea, the team asks the relevant online service providers to issue warnings to violators, to tell them to delete the illicit materials from networks and stop transmitting them, and to suspend the accounts owned by repetitive offenders. To deal with infringements committed outside Korea, the team asks Korea Communications Standards Commission to block access. When Minister of Culture, Sports and Tourism (hereafter "the Minister") requests information on copyright violators who have reproduced or transmitted materials online, Copyright Protection Deliberation Committee ("Deliberation Committee") examines the inquiry.



#### Copyright Protection Deliberation Committee: organization and operation

The Deliberation Committee, a decision-making body organized on the basis of Article 122-6 of the Copyright Act, performs deliberation with regard to recommendations or orders of correction, information requests on those who illegally reproduce or transmit, and other matters for which President of KCOPA asks deliberation or matters which Chairperson of Deliberation Committee refers to the committee for review. The committee consists of five to ten members appointed by the Minister, from those who have deep knowledge of and wide-ranging experiences in such fields as copyright, cultural industry or law. The members, with a three-year term of office, can be appointed for two consecutive terms. The committee currently has 9 members and three sub-committees, each with three members, are conducting deliberations once in a person-to-person meeting, and once in an online discussion every week.

#### **Deliberation procedures**

#### 1. Deliberation for corrective recommendations and orders

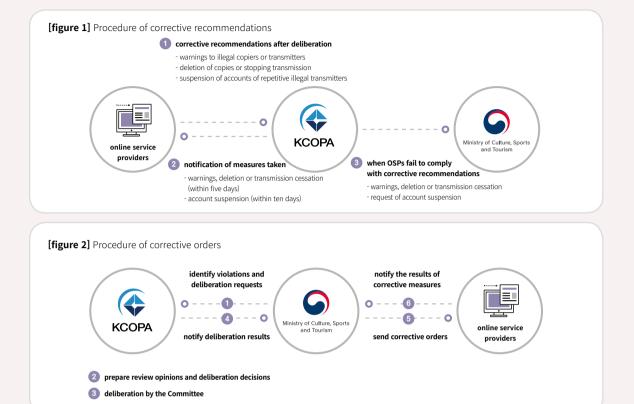
Deliberations for corrective recommendations proceed as follows. Where KCOPA finds that illegal copies have been transmitted online, it may recommend the relevant online service providers to take corrective measures, following a deliberation by the Deliberation Committee, which include warnings to reproducers or transmitters of the illegal content, deletion of the materials, suspension of the transmitting<sup>1)</sup>, and suspending the uploading accounts of repetitive offenders for one month.

Deliberations for corrective orders advance as follows. Where the Minister finds that copies or information which infringes on copyright or other rights protected under the Copyright Act are transmitted through communications networks, the Minister asks the Deliberation Committee to discuss on corrective orders. When the committee has deliberated and decided on the corrective orders in question, it notifies the Minister of the results. Approved corrective orders tell the online service providers to issue warnings to those who posted illegal content, and to delete the materials and stop transmitting them.

When online service providers fail to comply with KCOPA's corrective recommendations, the agency may, according to Article 133-3 (paragraph 3), ask the Minister to issue corrective orders.

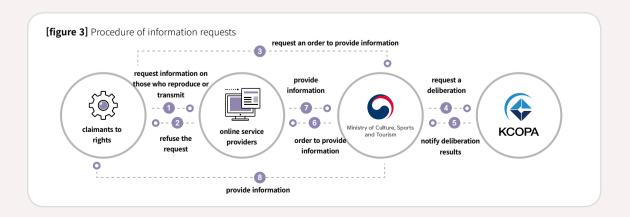


<sup>1)</sup> To "transmit" means to make content public so that individuals can have access to the material at the time and place of their choice.



#### 2. Information requests on illegal copiers or transmitters

Where a claimant to a right has requested an online service provider to provide information owned by the provider, such as the names and addresses of the reproducer or transmitter in question to the minimum extent necessary to file a civil lawsuit or bring criminal charges, but the online service provider has refused such request, the claimant may request the Minister to issue an order to the online service provider to provide such information. The Minister asks the Deliberation Committee to deliberate on the matter, and following the result, orders online service providers to submit information on the offenders.



#### 3. Requests to block access to foreign-based piracy websites

KCOPA judges, through the operation of the Deliberation Committee, on the illegality of a piracy website based outside of Korea by taking into account a variety of factors including the existence of permission by copyright owners, whether the violators are operators or users of the site, the way the illegal content are uploaded, whether the website provides any kinds of conveniences to users, and the share of illegal content in the whole website in question. Following the committee's deliberation, President of KCOPA asks Chairman of Korea Communications Standards Commission (KCSC) to block access to the illegal website. KCSC, after its investigation, issues corrective measures to the relevant Internet service provider, eventually blocking access of Korean users to the site.

#### Stronger measures to block illegal content

Copyright Protection Deliberation Team has been newly established this year to assist efficient deliberation procedures, with its main objective being continuous examination of illegal content circulating on communications networks and issuance of corrective recommendations against them, thereby helping raise awareness on copyright issues and develop a desirable copyright culture. The team will also place stronger regulations on copyright violations occurring on foreign-based websites by accelerating the deliberation procedure of the Deliberating Committee.







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### **Standing at the frontier of** copyright protection

**Field Investigation Team** 

written by Field Investigation Team in KCOPA





Field Investigation Team in Korea Copyright Protection Agency performs duties related to the provisions of Article 133 (Collection, Destruction and Deletion of Illegal Copies) and sub-paragraph 4 of Article 122-5 (Provision of support to the investigation and regulation of infringements on copyrights), preventive activities toward software copyright protection, and wide-ranging tasks (including education or consulting services) to encourage the use of genuine software products.



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① circulating training for public sector software managers

③ training session of Silver Observers

② investigation of a large-scale distributor with the Special Police





Markets for illegal copies are taking various forms due to the growth of digital media and technological advances. Unlawful reproductions used to be bought and sold in the forms of cassette tapes or compact discs (phonogram), DVDs (video), or printed books. Recently, however, new films, broadcast materials or music are stored and traded in the form of digital files with the help of massstorage devices such as SD cards, USBs and external hard drives. For university textbooks, printed versions are being replaced by digital file forms for both studying and bookbinding. Also, illegal duplicates of character products are distributed in doll-catching shops and over online open markets and SNS.

КСОРА REPORT

To cope nonstop with the transformation of illegal copies and diverse online and offline distribution channels, Field Investigation Team in Korea Copyright Protection Agency (KCOPA) has built a counter-measure system equipped with a national network. The team runs offices in Seoul (where KCOPA's headquarters sit), Busan, Daegu and Gwangju to collect, destroy and delete illegitimate copies trafficked in major areas of the country.

The team is also striving to place stronger perpetual monitoring over major trading places in 42 areas including Seoul and its neighborhood. One of the endeavors consists in hiring 20 senior citizens as observers (entitled "Silver Observers"), who are in charge of reporting cases of dealing in forbidden replicas. Silver Observers program,





(4) illegal character products (Lego) confiscated in cooperation with the Special Police

⑤ circulating training for public sector software managers in 2018

in operation since 2012, has served to help prevent the transaction of unlawful counterfeits in Seoul and its close areas, and also to provide temporary jobs to members of senior workforce.

#### Cooperation with investigation agencies and prevention activities for large-scale illegal distributions

Complete blocking of illegal copies transactions requires cooperation with investigation agencies. Despite the necessity of regulating when unlawful dealings have happened, it is more conducive to minimizing the illegitimate circulation to prevent massive production and distribution of illegal duplicates. That is why the preventive activities are given high priorities in the business of the team.

To achieve the preventive ends, Field Investigation Team cooperated with the Special Judicial Police of Ministry of Culture, Sports and Tourism ("the Special Police") to conduct a planned investigation into large-scale distributors trafficking in unlawful character products (Lego) and publishing companies. The probe uncovered 10 cases of illegal transactions, confiscating as many as 25,367 pieces of illegal items.

The team also responded to the requests for assistance in examining software from investigative authorities such as prosecutors' offices, police agencies and relevant organizations of Ministry of Culture, Sports and Tourism by sending 400 specialist technicians to help solve 190 cases in this year alone. These requests are continuously on the rise.

#### Spearheading the efforts to encourage the use of genuine software products

A presidential rule (The Presidential Rules on the Management of Software Used in Public Agencies, June 6th 2012) has made software management instruction in public agencies mandatory. In compliance with the legal demand, there have been 26 sessions of circulating training by region. The classes focus on laws and regulations related to effective software management in public agencies, software licenses, and how to use tools to check software. Also, practical job training has been provided for those in charge of software management, and collective education sessions for public agencies are being separately prepared to begin from the latter half of this year.

Public sector collective training is recently in high demand. Therefore, it will be given high priority the next



© collecting evidence for software regulation  $\ensuremath{{\ensuremath{ @}}}$  screen-shot of PC font inspector program

® Copyright Class for Youth 2018

year. Also, requests for software checking and for consulting visits are coming from various educational institutions, which will be part of the team's future job. Furthermore, precautionary examinations are conducted for software used by central administrative agencies, local governments and government-owned corporations. Review of software use in public sector has been carried out every year since 2004, consisting of internal inspection by each institution and external field examination by cooperation with the Special Police.

Meanwhile, KCOPA has built and provided on its website a software-check program (entitled "Inspector"), which can be used free of charge to examine software assets. The program comes in four versions to be downloaded as needed: Windows Inspector (for general use), Windows Inspector (for government and public agencies), MacOSX Inspector, and Web Inspector. Furthermore, a PC font inspector program has also been developed and distributed to prevent legal conflicts over font issues in educational institutions. The program can also be downloaded freely from KCOPA website.

#### Introducing young students to the importance of copyright protection

Field Investigation Team is collaborating with Korea Software Property Right Council to run 'Copyright Class for Youth' for elementary schoolers. The class, essentially early education in copyright issues, targets 4th, 5th and 6th graders to open their eyes to the concept of intellectual property and the significance of using genuine software products, and to lay the groundwork of future growth of software industry. Special efforts are being made to invite active participation from the young students by explaining the concepts of copyright and the right way of using works in a manner that they can easily understand, and also by adding entertaining factors such as software copyright quizzes.

#### Plans in 2019 of Field Investigation Team

The team will continuously strengthen its duty-related expertise, and also will put high priorities on blocking the trading of illegal copies (both online and offline) through partnership with investigation agencies. Great emphasis will also be placed on copyright-related instruction and consulting, which serve as preventive measures against infringements, resulting in highly intensified copyright protection activities.



### 2018 KCOPA REPORT

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Protection Agency for copyright protection and improvement of copyright protection awareness, which can also be viewed via the website.

If you wish to write for <KCOPA REPORT> Please inquire the Research Team of Korea Copyright Protection Agency(kyl@kcopa.or.kr)

#### **Korea Copyright Protection Agency**

- Take counter-measures for online illegal reproductions including deliberation, elimination, corrective recommendation, etc.
- Research infringement status and draw statistics
- Status inspection for SW usage in public institutions
- Copyright protection technology R&D
- Support investigation for copyright infringement
- Certifying the Copyright OK

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