# THE PROTECTION OF BROADCASTERS' RIGHTS IN A CHANGING TECHNOLOGICAL LANDSCAPE

## A VIEW FROM SOUTH KOREA

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# ABSTRACT

This thesis aims to deal with broadcasters' rights as a subject matter of intellectual property law and in the context of technological development. Particularly, attempts have been made to analyze what impacts that the modern broadcasting and telecommunication technologies possibly have on the protection of broadcasters' rights, and how the legal frameworks, either domestic or international ones, deal with those impacts. The jurisdiction selected for study is South Korea, due to the high development of the country's broadcasting industry and technological landscape.

The dramatic expansion of Korean audiovisual industry has been striking throughout East Asia. This impression is supported by the increasing export of Korean motion pictures and television broadcasting programs.[1] In 2011, it is estimated that South Korea exported over 437.5 billion Won worth of film and TV products.[2] The surge in worldwide popularity of the Korean audiovisual industry can be illustrated with the acknowledged term *Korean Wave* (or *Hallyu* in Korean language). In the narrowest sense, the 'Korean Wave' refers to a surge in the international visibility of Korean culture. The wave consists principally of two forms of media, television serials and pop music.[3]

In the 21st century, The Korean Wave has especially experienced a significant change with the development of digital technologies and Internet-based social media. These technological evolutions, as new driving engines of the Korean Wave, have initiated and supported the popularity of the Korean culture in many countries.[4] The development of digital technologies, Internet platforms and new television services has allowed the Korean audiovisual industry to reach a substantial overseas audience. Apart from those opportunities, however, the technologies have also posed challenges to the country's broadcasting industry. In the digital age, South Korea's broadcasters, like those in many countries, are faced with various forms of infringement, including unauthorized access, use or exploitation of their broadcasts. Technology-related challenges faced by Korean broadcasters shall be discussed as one of the main parts of this paper.

The risk that broadcasts are pirated, thanks to modern technologies, can be confronted by specialized technological protection measures (TPMs). Then again, creative pirates can however develop new and more sophisticated technical methods that allow them to circumvent the TPMs and get illegal access to the broadcasts. Due to those facts, the protection of broadcasters' rights by legal means, in addition to technical means, is indispensable in the digital age. Regarding the mentioned technological threats to the Korean broadcasting industry, this paper shall examine the protection scope of Korean broadcasters' rights from those threats in their national legal framework. To this end, relevant provisions in the Korean Copyright Act (hereinafter KCA) shall be discussed in detail and in association with the technological context

[1] SUNGEUN, SHIM: *Behind the Korean Broadcasting Boom*, NHK Broadcasting Studies No.6, 2008, at 1. (Available at https://www.nhk.or.jp/bunken/english/reports/pdf/08_no6_10.pdf/)

[2] OXFORD ECONOMICS, *The economic contribution of the film and television industries in South Korea*, Oxford Economics, 2012, at 12. Available at http://mpa-i.org/wp-contents/uploads/2014/08/Economic_Contribution_of_the_Film_and_Television_Industries_in_South_Korea1.pdf/

[3] MARK RAVINA, Emory University, *Introduction: Conceptualizing the Korean Wave*, Southeast Review of Asian Studies, Volume 31, 2009, 3-9, at 3.

[4] DAL YONG JIN, *The New Korean Wave in the Creative Industry – Hallyu 2.0*, University of Michigan, II Journal, 2012, at 3.

of broadcasting in South Korea. Some further solutions for enhancing the protection of broadcasters' rights in this country will be drawn in this paper's final part.

## 1. The law of broadcasters' rights: International framework

The legal aspect analysis of this paper cannot be fulfilled without taking into account the international frameworks aimed at harmonizing the protection of broadcasters' rights. Particularly, three relevant treaties of which South Korea is a member shall be studied. They are: the Rome Convention,[5] the Satellite Convention, also known as the Brussels Convention,[6] and the TRIPS Agreement.[7]

### 1.1. Rome Convention

The Rome Convention administered by the World Intellectual Property Organization (hereinafter WIPO) is the first international instrument that recognizes broadcaster's neighboring rights. The Convention was established in October 1961 and came into force in May 1964. By now, 92 countries have adhered to the Convention.[8]
The Convention adopts the principle of national treatment, which requires its member countries to protect the right owners of other signatories equally with theirs (Art. 2)[9]. For broadcasting organizations, the Convention recognizes the exclusive rights to authorize or prohibit certain acts, namely the rebroadcasting of their broadcasts (Art. 13(a)); the fixation of their broadcasts (Art. 13(b)); the reproduction of such fixations (Art. 13(c)); and the communication to the public of their television broadcasts if such communication is made in places accessible to the public against payment of an entrance fee (Art. 13(d)). The Convention does not define specifically what is a 'broadcast', but only defines 'broadcasting' as 'the transmission by wireless means for public reception of sounds or of images and sounds' (Article 3(f)). The notion of 'broadcast' accordingly can be inferred as sounds and images transmitted by wireless means for public reception. One should keep in mind that a 'broadcast' itself is distinct from the audiovisual contents that it embodies.

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[5] International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, done at Rome on October 26, 1961, hereinafter Rome Convention.
South Korea's accession date and in-force date to the Rome Convention is December 18, 2008 and March 18, 2009, respectively.
Information available at http://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=17/

[6] The Convention Relating to the Distribution of Program-Carrying Signals Transmitted by Satellite Done at Brussels on May 21, 1974 (hereinafter the Brussels Convention or Satellite Convention)
South Korea's accession date and in-force date to the Satellite Convention is December 19, 2011 and March 19, 2012, respectively.
Information available at http://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=19/

[7] Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, Legal Instruments—Results of the Uruguay Round, 33 I.L.M. 1125, 1197 (1994) (hereinafter TRIPS Agreement).
South Korea's in-force date for the TRIPS Agreement is January 1, 1995. Information available at http://www.wipo.int/wipolex/en/other_treaties/parties.jsp?treaty_id=231&group_id=22/

[8] As of February 6, 2017.
Information available at http://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=17/

[9] MEGUMI OGAWA, '*Protection of Broadcasters' Rights*', Martinus Nijhoff Publishers, Leiden, 2006, at 44.

The Rome Convention drafting was based on the technological landscape in the 1960s.[10] A gap between the modern technology and that at the time the Convention was concluded can be clearly seen, considering in detail the provisions. Particularly, the Convention protects only wireless broadcasting (Art. 3(f)). Because cable broadcasting was not prevalent at that time, the Convention did not take into account the rights of wired distribution.[11] Also, the Convention does not recognize the right of decoding encrypted signals, as encryption technology had not arrived when the Convention was established.[12]

In the Rome Convention, 're-broadcasting' refers to receiving a broadcast and simultaneously re-transmitting it. Article 3(g) of the Rome Convention defines 're-broadcasting' as 'the simultaneous broadcasting by one broadcasting organization of the broadcast of another broadcasting organization.' Broadcasting a fixation of a broadcast is so-called deferred broadcasting, which is distinct from 'rebroadcasting' in the Rome Convention context.[13] At the time when the Convention was drafted, there hardly were technologies that allow for fixation or reproduction; hence the act to retransmit a broadcast at a different time from the original broadcasting by using a fixed broadcast was then quite uncommon. The Rome Convention therefore did not recognize the right of deferred broadcasting but only that of 'simultaneous rebroadcasting'.[14]

## 1.2. Brussels Convention

The Brussels Convention, or Satellite Convention, was established in May 1974 in order to protect program-carrying signals via satellite and came into force in September 1979.[15] This Convention is known as the first international treaty to introduce the concept of a program-carrying signal.[16] Although the Satellite Convention does not directly define 'program-carrying signals', it provides relevant definitions in Article 1. Particularly, 'signal' is an electronically generated carrier capable of transmitting programs, and 'program' is a body of live or recorded material consisting of images, sounds or both, embodied in signals emitted for the purpose of ultimate distribution. This notion of the 'programs carried by signals', conveniently, corresponds to the concept of 'broadcasts' in the Rome Conventions.[17]

Satellite Convention imposes on its member countries an obligation to provide measures to prevent the distribution on or from its territory of any program-carrying signal, by any distributor for whom the signal emitted or passing through a satellite is not intended (Art. 2(1)). Nevertheless, the role of the Convention is more like a 'public law' than a copyright and related right convention.[18] It grants to broadcasting organizations no specific intellectual property or any other rights;[19] instead it requires the Contracting Parties to take 'adequate measures' to protect program-carrying signals. What constitutes 'adequate measures' however is not

[10] GHOLAMREZA RAFIEI: '*The Possibility of granting new legal protection and IP rights to broadcasting organizations against the unauthorized exploitation of their broadcasts*', University of Neuchâtel, 2015, at 98.
[11] MEGUMI OGAWA, *'Protection of Broadcasters' Rights',* supra at note 9, at 77.
[12] MEGUMI OGAWA, *'Protection of Broadcasters' Rights',* supra at note 9, at 78.
[13] MEGUMI OGAWA, *'Protection of Broadcasters' Rights',* supra at note 9, 44 ff., at 44, at 45.
[14] MEGUMI OGAWA, *'Protection of Broadcasters' Rights',* supra at note 9, 44 ff., at 78.
[15] Total Contracting Parties: 37 as of February 6 2017.
[16] MEGUMI OGAWA, *'Protection of Broadcasters' Rights',* supra at note 9, 47 ff., at 47, 48.
[17] GHOLAMREZA RAFIEI: '*The Possibility of granting new legal protection and IP rights to broadcasting organizations against the unauthorized exploitation of their broadcasts*', supra at note 10, at 106.
[18] GHOLAMREZARAFIEI: '*The Possibility of granting new legal protection and IP rights to broadcasting organizations against the unauthorized exploitation of their broadcasts*', supra at note 10, at 107.
[19] ibid.

specified. Member countries have the discretion to determine how they will give effect to this obligation.

What is noticeable about the treaty is that it does not apply to signals that are intended for direct reception from the satellite by the general public,[20] but only for those communicated or transmitted between different broadcasting organizations.[21] This concept of signals seems to match that of 'pre-broadcast signals' that has been generally accepted in the WIPO's Standing Committee on Copyright and Related Rights (hereinafter WIPO SCCR).[22] The absence of public-received signals protection indicates a gap between the Convention's protection scope and the technological reality, since nowadays, pirates can capture the signals, with their contents, either at the stage of the pre-broadcast transmission or at the stage of the actual broadcasting.[23]

## 1.3. TRIPS Agreement

The TRIPS Agreement was established in April 1994 at the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) and came into effect in January 1995.[24] Since it binds 164 countries [25] that participate in the WTO, TRIPS has impacts on a wide-ranging geographical scope. The Agreement is also known as one of multilateral treaties that have 'teeth', for its comprehensive enforcement scheme. However, regarding broadcasters' rights, TRIPS does not provide a higher level of protection than the Rome Convention.[26]

As to broadcasters' rights, TRIPS recognizes the right of fixation, reproduction and rebroadcasting, and also the right of communication to the public for television broadcasts in the earlier part of Article 14(3). However, the latter part of Article 14(3) provides an alternative where the member states do not recognize the rights of broadcasting organizations. It states that 'Where Members do not grant such rights to broadcasting organizations, they shall provide owners of copyright in the subject matter of broadcasts with the possibility of preventing the above acts'. To some extent, this provision can be understood as effectively ignoring rights of broadcasters. In other words, a Contracting Party has no obligation to grant special rights to

[20] Article 3 of Satellite Convention: 'This Convention shall not apply where the signals emitted by or on behalf of the originating organization are intended for direct reception from the satellite by the general public.'

[21] GUIBAULT L. & MELZER R., *The legal protection of broadcast signals*, IRIS Plus, Legal observations of the European Audiovisual Observatory (10), 2004, at 3.

[22] 'Pre-broadcast signals' are those intended not for direct reception by the public, but for use by broadcasting organizations in their broadcasts. Therefore, they are not broadcasting, but point to point transmissions, e.g., between two broadcasters by satellite, wire or other telecommunication links, or by links from the site of an event (sports, news or cultural) to one or more national and/or foreign broadcasting organizations for the purpose of enabling the latter's broadcasting of the event. Such transmissions can also take place in other cases, such as from some premises of the broadcasting organization to other of its premises or the pre-broadcast transmission of programming from a broadcast network to its affiliated stations, or between program suppliers and broadcasting licensees. Normally, the pre-broadcast signals are broadcast to the public after some editing of the contents, for example, through the addition of spoken comments and advertisements, etc., according to WIPO SCCR Eighth Session, Geneva, November 4 to 8, 2002, *Protection of broadcasting organizations: Terms and Concepts*, Working paper prepared by the Secretariat, at 15.

[23] WIPO SCCR Eighth Session, Geneva, November 4 to 8, 2002, *Protection of broadcasting organizations*, Working paper prepared by the Secretariat, at 15.

[24] Information available at http://www.wipo.int/wipolex/en/other_treaties/details.jsp?treaty_id=231/

[25] As of February 6, 2017.
Information available at: http://www.wipo.int/wipolex/en/other_treaties/parties.jsp?treaty_id=231&group_id=22/

[26] See, MEGUMI OGAWA, '*Protection of Broadcasters' Rights*', supra at note 9, 51 ff., at 51, 52.

broadcasters as long as it complies with the relevant provision of the TRIPS Agreement.[27]

## 2. The law of broadcasters' rights: Korean legal framework

### 2.1. Overview

In the intellectual property legislation,[28] Korean broadcasters are granted neighboring rights in Chapter III of the Korean Copyright Act (KCA)[29], along with Korean performers and music record producers.

The KCA does not give specific notion to 'neighboring rights'. It can be inferred from the beneficiaries that neighboring rights are the rights accorded to persons who present creative works (belonging to authors) to the public, but are not regarded as creators in their own right.[30] 'Neighboring rights' are also referred to as 'related rights' or more precisely, rights related to copyright, in some other jurisdictions.

The KCA grants the mentioned beneficiaries certain rights in respect of their stage performances, music records and broadcasts. However, the KCA also clarifies in Article 65 that the protection of neighboring rights is in no way affecting the exercise of copyright.[31] That means, for example, if the audiovisual contents of the broadcast program qualify as 'works' specified in the KCA,[32] copyright is recognized in the broadcast materials. The copyright owner of the material, accordingly, can exercise the exclusive rights granted to him in Section 4, Subsection 1 of the KCA to the audiovisual contents, regardless of the rights of the broadcasting organization. If a broadcasting organization is also the producer of a broadcast program, it can be granted two layers of protection, one under broadcasters' rights and the other under copyright.

In South Korea, there is a diversity of television programs. The important genres include serial dramas, historical dramas, variety shows, game shows, music shows, sports events, news programs, and documentaries.[33] While the majority of these programs contain copyright-protected contents, whether or not audiovisual programs such as daily reports, news and sports can be protected under copyright attracts controversial opinions in countries around the world. For example, in the case of a football match, some courts hold that copyright only exists in the

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[27] GHOLAMREZA RAFIEI: '*The Possibility of granting new legal protection and IP rights to broadcasting organizations against the unauthorized exploitation of their broadcasts*', supra at note 10, at 110

[28] Regarding concepts of 'broadcasters' rights', one may refer to the rights of broadcasting organizations in broadcasting legislation. Particularly, the broadcasting organization has the right to broadcast what it wants to broadcast, or in another term, the freedom to broadcast. One may also refer to broadcasters' rights in telecommunication legislation, which simply means that the broadcasters can transmit signals of certain frequencies which they have been allocated by their governments for direct reception by the general public (See, MEGUMI OGAWA, *'Protection of Broadcasters' Rights'*, supra at note 9, 27 ff., at 27, 28). For the purpose of this paper, only broadcasters' rights in intellectual property legislation shall be analyzed.

[29] The Korean Copyright Act analyzed in this paper is the latest version amended in 2013, namely Act No. 12137, Dec. 30, 2013, and coming into force on Jan 7,2014. The law is in Korean. The English version can be found at the official website of South Koreas' Ministry of Government Legislation http://www.moleg.go.kr/english/
Link to the Korean Copyright Act English version:
http://law.go.kr/engLsSc.do?menuId=0&subMenu=5&query=#liBgcolor0

[30] STERLING J., *World Copyright law: protection of authors' works, performances, phonograms, films, video, broadcasts, and published editions in national, international and regional law* (2nd Edition ed.), Sweet and Maxwell, London, 2003, at 62.

[31] Article 65 KCA: 'In this Chapter, provisions of each Article shall not be construed to affect copyright.'

[32] Article 2.1 KCA: The term 'work' means a creative work that expresses human thoughts and emotions.

[33] See: https://en.wikipedia.org/wiki/List_of_South_Korean_television_series/

anthems, graphics and recorded highlights, not in the actual matches,[34] but others consider the broadcast of the sporting match itself covered by copyright principles.[35] In Korean law, what is protectable under copyright has to be a creative work that expresses human thoughts and emotions (Article 2 KCA). The Supreme Court of Korea ruled on the 'originality' of works as a requirement for protection of the works under copyright law, stating that the work is required to have 'the unique characteristic of the author's mental efforts and is distinguishable from the existing works of others' to be copyright-protected.[36] Commonly, the audiovisual contents of news and sports programs are edited only with some additional texts, highlights, or opening sounds. It is therefore quite doubtful whether such broadcasts qualify as expressions of human thoughts and emotions, or has unique characteristics of the author's mental efforts. Some decisions of national courts may be necessary in clarifying this matter. Other examples of broadcasts not protected under copyright include those whose contents have fallen into the public domain, due to the expiration of their copyright duration, and those whose contents involve works not eligible for protection like government notices or court proceedings.[37]

In any event, the distinguishing between broadcasts that contain copyright-protected contents and those containing non-copyrightable contents is important, as they shall be protected differently. The latter parts of this paper will discuss the distinction between the protection of broadcast contents under neighboring rights and that under the copyright principles.

Apart from copyright and neighboring rights, the Korean copyright law also specifies broadcast signals as an objective of protection. The concept of broadcast signals is new in the copyright law and the means for their protection is quite unique.[38] This protection mechanism will be analyzed within this paragraph.

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[34] According to the European Court of Justice in joined cases <Football Association Premier League Ltd and Others v QC Leisure and Others (C-403/08)> and <Karen Murphy v Media Protection Services Ltd (C-429/08)> on 4 October 2011 - 'Football Association Premier League and Others' case, 'sporting events cannot be regarded as intellectual creations classifiable as works within the meaning of the Copyright Directive. That applies in particular to football matches, which are subject to rules of the game, leaving no room for creative freedom for the purposes of copyright. The ECJ, however, acknowledged that sporting events have a 'unique' and 'original' character, transforming them into subject matter capable of being protected as works. Certain aspects of the broadcasts were, then, held to be protected under copyright as 'works', namely the opening video sequence, the EPL 'anthem', recorded highlights, and various graphics used in the course of the broadcasts. See, CHRIS DAVIES, *Copyright and Sport Broadcasting in Australia and England*, Bond University, Sport Law E-journal, 2015, 6ff., at 6, 7.
Available at http://epublications.bond.edu.au/slej/26/

[35] According to the Federal Court of Australia in the case FCAFC 59 <National Rugby League Investments Pty Limited v Singtel Optus Pty Ltd> on 27 April 2012, Singtel Optus and its subsidiary, Optus Mobile Pty Ltd, began a new service called TV Now enabling customers to record free to air television programs on personal computers, iPhone or iPod, Android mobile devices, or 3G mobile phones. The central issue in the case was whether Optus had infringed copyright of the NRL, Australian Football League (AFL) and Telstra in regard to a number of matches played in September 2011. The parties agreed that copyright subsisted in each of the NRL and AFL broadcasts and films, and that the NRL and AFL owned the respective copyright to these, while Telstra was the exclusive licensee of the copyright in regard to Internet and mobile phone use. See, CHRIS DAVIES, *Copyright and Sport Broadcasting in Australia and England*, Bond University, Sport Law E-journal, 2015, 2 ff., at 2, 3, 4, 5, 9.
Available at http://epublications.bond.edu.au/slej/26/

[36] YUNJEONG CHOI, *Development of Copyright Protection in Korea: Its History, Inherent Limits, and Suggested Solutions*, Brooklyn Journal of International Law, Volume 28 Issue 2 SYMPOSIUM: *Do Financial Supermarkets Need Super Regulators?*, Article 13, 2003, at 654.

[37] See Article 7 KCA.

[38] KYONG-SOO CHOE, '*Protection of Broadcast Signals in Korea from the Perspective of Copyright Law*', Asian Business Lawyer Vol.11: 107, 2011, at 109.

## 2.2. Protection of broadcasters' rights as neighboring rights

**- Object of protection**

The KCA grants certain rights for broadcasters, or 'broadcasting service providers'[39] as specified in the law, over their 'broadcasts' in its Chapter III. However, the law does not give a specific definition of a 'broadcast'. What is a 'broadcast' can be learnt only from relevant concepts in Korean legislation.

Article 2.8 of the KCA defines the term 'broadcasting' as 'transmitting sound, image, or sound and image so that the public may receive it at the same time among the public transmission'. From that definition of 'broadcasting', it appears that a 'broadcast' is any sound, image or combination of sounds and images transmitted by a broadcasting service provider and received simultaneously by the public. This concept of 'broadcast' in the Korean law shows an improvement to that in the Rome Convention. Particularly, while the Rome Convention limits the definition of 'broadcasts' only to those transmitted by wireless means,[40] the KCA applies the 'technical neutrality'[41] approach of protection, covering also broadcasts transmitted by wired means, or distributed by cable in other words.

Apart from that, as required by the KCA, a protectable broadcast has to be made by broadcasting service providers that are nationals of or from broadcasting installations located in South Korea, or other countries party to relevant treaties of which South Korea is also a member.[42]

Regarding the notion of 'broadcasting', one should take into account relevant provisions in the Korean Broadcasting Act [43] (hereinafter KBA). 'Broadcasting' in Article 2.1 of the Act is defined as *planning, programming or producing broadcast programs, and transmitting them to the general public through telecommunication facilities.*[44] This concept of 'broadcasting' in the

[39] Article 2.9 KCA defines broadcasting service provider as 'a person who engages in broadcasting business', this notion corresponds to the notion of 'broadcasting organizations' or 'broadcasters' in other countries' legislation, as well as the term 'broadcasters' used in this thesis.

[40] Article 3(f) of Rome Convention: 'broadcasting' means the transmission by wireless means for public reception of sounds or of images and sounds.

[41] I.e. the same law applies no matter what technology is used.

[42] Article 64.3 of the KCA sets conditions for broadcasts to be protected:
(a) Broadcasts made by broadcasting service providers which are nationals of the Republic of Korea;
(b) Broadcasts made from broadcasting installations located in the Republic of Korea;
(c) Broadcasts made by broadcasting service providers who are nationals of a foreign country party, from broadcasting installations located in the foreign country party to the treaties to which the Republic of Korea has acceded or which it has ratified and thus protected under such treaties.

[43] Act No.13220, 13. Mar. 2015. Enforcement date: 13. Mar. 2015. According to Article 1 of the Act, the purpose of this Act is to promote the protection of the rights and interests of the viewers, the formation of the democratic public opinion and the improvement of national culture, and to contribute to the development of broadcasting and advancement of public welfare, by guaranteeing the freedom and independence of broadcasting and by enhancing public responsibilities of broadcasting.

[44] Article 2.1 Korean Broadcasting Act: 'The term 'broadcasting' means planning, programming or producing broadcast programs, and transmitting them to the general public (including the recipients under individual contracts; hereinafter referred to as 'audiences') through telecommunication facilities, referring to any of the following items:
(a) Television broadcasting: Broadcasting which transmits broadcast programs comprised of the instant images of stationary or moving objects, and of the voices, sounds, etc. incidental thereto;
(b) Radio broadcasting: Broadcasting which transmits broadcast programs composed of voices, sounds, etc.;
(c) Data broadcasting: Broadcasting (excluding the cases of providing or mediating through communication network, such as the Internet; hereinafter the same shall apply) which transmits broadcast programs composed of, mainly, the data (referring to the letters, numerals, diagrams, graphs, images and other information systems), and

provision is quite similar to that in the KCA, except for the broadcast items referred to in the latter part of the provision. Particularly, the KBA recognizes the transmission of sounds, images and data as 'broadcasting', which is different from 'broadcasting' in the KCA that only covers sounds and images. As this paper regards 'broadcasting' only in the intellectual property context, the concept in the copyright law is more relevant. Data broadcasting specified in the KBA is therefore excluded from the focus.

**- Beneficiaries**

The beneficiaries of the rights in question are 'broadcasting service providers', who according to Article 2.9 KCA are 'persons who engage in broadcasting business'. What constitutes 'broadcasting business' is not further clarified in the KCA, but can be found in the Korean Broadcasting Act. Article 2.2 of the Act recognizes four types of broadcasting business, namely terrestrial broadcasting, cable television broadcasting, satellite broadcasting and programming providing business.[45] Of all those mentioned types, the last one, 'programming providing business' (PPB) is worth scrutinizing in the context of copyright law. PPB is defined in the KBA provision as '*a business of using the relevant channel by entering into a contract for exclusive use of whole or part of time of a specific channel with a terrestrial broadcasting business operator, a cable television broadcasting business operator, or a satellite broadcasting business operator'.* A PPB, accordingly, does not own broadcasting infrastructures, but merely transmits programs prepared by terrestrial, cable and satellite broadcasting businesses. The operator of this kind of business seems more like a TV content supplier, for example, an IPTV service provider,[46] rather than a 'broadcaster' under intellectual property law.

Another condition made for the recognition of broadcasters by the KBA is about governmental licenses in Article 2.3 and Article 9 of the Act. To be certificated as 'broadcasting business operator', an entity has to obtain a license from the competent authority.[47] As this license is a

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of the images, voices, sounds and their combinations incidental thereto using the channels of the broadcasting business operators;

(d) Digital multimedia broadcasting: Broadcasting which transmits television broadcasting, radio broadcasting and data broadcasting signals in complexity using multi-channels for the main purpose of receiving while moving;'

[45] Article 2.2 KBA: The term 'broadcasting business' means the business of providing the following broadcasts:

(a) Terrestrial broadcasting business: A business of managing and operating wireless stations on the ground aimed for broadcasting, and of providing broadcasts by using them;

(b) Cable television broadcasting business: A business of managing and operating cable television broadcasting stations (referring to the cable broadcasting station facilities and the employees thereof in whole for providing multi-channel broadcasts; hereinafter the same shall apply), and of providing broadcasts by using the transmission and line facilities;

(c) Satellite broadcasting business: A business of managing and operating wireless stations by owning or leasing the wireless facilities of satellites, and of providing broadcasts by using them;

(d) Programming providing business: A business of using the relevant channel by entering into a contract for exclusive use of whole or part of time of a specific channel with a terrestrial broadcasting business operator, a cable television broadcasting business operator, or a satellite broadcasting business operator;

[46] Definition and characteristics of IPTV service provider is illustrated in a subsequent part of this paper.

[47] Article 2.3 KBA. The term 'broadcasting business operator' means the person in each of the following items:

(a) Terrestrial broadcasting business operator: A person who has obtained a license under Article 9 (1) for operating a terrestrial broadcasting business;

(b) Cable television broadcasting business operator: A person who has obtained a license under Article 9 (2) for operating a cable television broadcasting business;

(c) Satellite broadcasting business operator: A person who has obtained a license under Article 9 (2) for operating a satellite broadcasting business;

prerequisite for any broadcaster to legally operate its business, it is unnecessary to consider it in the narrower context of intellectual property law.

**- Rights/ Restricted acts**

There are three specific rights granted to broadcasters in Chapter III, Section 4 of the KCA, namely right of reproduction (Article 84)[48], right of simultaneous relay (Article 85)[49] and performance right (Article 85-2).[50] The 'right of reproduction' under the KCA encompasses two certain acts, one of them the fixation and the other the copying of the broadcast, according to the definition of the term 'reproduction' in Article 2.22 KCA.[51] The performance right in the KCA can be exercised only in places accessible to the public against the payment of entrance fees, a condition that is also specified in the Rome Convention. Obviously, as regards neighboring rights, the KCA does not grant a higher level of protection for broadcasters than the Rome Convention does. The law only covers the right of simultaneous broadcasting, and does not mention that of deferred re-broadcasting. The act of deferred re-broadcasting, however, is managed by the right of reproduction (or fixation),[52] as the re-transmission of a broadcast at a later time requires fixing such broadcast into an audiovisual work. However, under circumstances in the modern technological landscape, the act of fixation may not infringe broadcasters' rights. That happens when the broadcast is fixed by a licensee content provider, with the authorization of the licenser broadcaster, and then distributed to the audience that subscribe to the service. The specific situation shall be discussed in the subsequent parts that examine impacts of modern technologies.

Above is the case when the broadcaster only has neighboring rights to its broadcasts. As mentioned above, under some circumstances, broadcasters can be protected also by copyright like an author of works besides its neighboring rights, which constitutes a two-layer protection.

## 2.3. Protection of broadcasters' rights when copyright exists in broadcast contents:

When a broadcaster meets two certain conditions: first, it is also the producer, or the owner by assignment or license, of the broadcast contents, and second, the audiovisual contents in the broadcast qualify as copyrightable works, the broadcaster can use copyright as a tool of protection for his broadcast contents. In case the broadcaster does not own the contents, the contents are still protected under copyright that belongs to its author.

Specifically, the broadcaster at issue has the exclusive property rights granted to authors in the KCA, Section 4, Subsection 1, including *inter alia* the right of reproduction (Article 16), public

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(d) Programming providing business operator: A person who has registered or obtained approval under Article 9 (5) for operating a programming providing business;

(e) Community radio broadcasting business operator: A person who has obtained a license under Article 9 (11) for operating radio broadcasting for the purpose of public interest at ten watt or lower antenna power;

[48] Article 84 KCA (Right of Reproduction): 'Broadcasting service providers shall have the right to reproduce their broadcasts.'

[49] Article 85 KCA (Right of Simultaneous Relay): 'Broadcasting service providers shall have the right to send out their broadcasts on a national network simultaneously.'

[50] Article 85-2 KCA (Performance Rights): 'Where a broadcasting service provider receives entrance fees in relation to the viewing of broadcasting at a place accessible to the general public, he/she shall have the right to perform such broadcasting.' [This Article Newly Inserted by Act No. 10807, Jun. 30, 2011]

[51] Article 2.22 KCA: 'The term 'reproduction' means a fixing on a tangible object temporarily or permanently or a remaking by means of printing, photographing, copying, sound or visual recording, or other means; in cases of architectural structures, it means to execute construction works in accordance with the models or plans for the relevant construction works.'

[52] Article 84 KCA.

performance (Article 17), public transmission (Article 18) and distribution (Article 20) over its broadcast contents.

The public transmission right [53] allows the author to restrict the act of 'transmitting his works by means of radio communication or wire communication so that the public may receive them or have access to them'.[54] With respect to broadcasting, this right can be interpreted as covering the act of re-broadcasting the broadcast or re-transmitting the broadcast contents without authorization. Unlike the case where only neighboring rights apply, the broadcaster in this case is also the copyright owner, thus being able to prevent the re-broadcasting or re-transmitting act at any time, regardless of whether the act is simultaneous or deferred.

With the distribution right,[55] the copyright owner can impede the transfer or rental of the original or its reproduction of the works to the public with or without payment.[56] In this regard, the copyright owner has the right to prevent others from by any means assigning the ownership of his broadcast contents to the public.

In brief, when copyright subsists in the broadcast contents, such contents are granted a two-layer protection. One is under the copyright that granted to the contents owners, and the other under neighboring rights of broadcasters over the broadcasts that embody the contents. The running of two different right mechanisms by copyright law is popular not only in South Korea but also in most civil law countries.[57] To understand the rationale behind this issue, one should take a look into the justifications of these two mechanisms. Neighboring rights aim to protect the legal interests of certain persons and legal entities who contribute to making works available to the public or produce subject matter that will not qualify as 'works' under the copyright systems but express creativity or technical and organizational skill sufficient to justify recognition of a copyright-like property right.[58] The neighboring rights of broadcasting organizations are recognized because they have spent considerable time, skill, effort and money on the preparation of their programs, and it is unfair that others, including competitors, exploit the programs by rebroadcasting them, recording them or showing them in places to which the public had access.[59] The broadcasters' rights are therefore aimed at protecting their substantial investment. This justification of neighboring rights is different from that of copyright, especially in civil law countries. The civil law ('*droit d'auteur*') system focuses on rewarding the intellectual effort of the author. Copyright is therefore granted only to authors of literary, dramatic, musical and artistic works, and other works for their own original intellectual creation. Entities that do not possess an independent, intellectual mind and contribute only to

[53] Article 18 KCA: The author shall have the right to transmit his/her work in public.

[54] Article 2.7 KCA: 'The term 'public transmission' means transmitting works, stage performances, music records, broadcasting or database (hereinafter referred to as 'works, etc.') by means of radio communication or wire communication so that the public may receive them or have access to them;'

[55] Article 20 KCA: 'The author shall have the right to distribute the original or reproduction of his/her work: Provided, That the original or reproduction of the work has been offered to a deal by means of sale, etc. with permission of the relevant holder of author's property right, the same shall not apply'

[56] Article 2.23 KCA: 'The term 'distribution' means a transfer or rental of the original or its reproduction of the works, etc. to the public with or without payment;'

[57] The list of countries and their legal systems available at https://www.cia.gov/library/publications/the-world-factbook/fields/2100.html/

[58] INTERNATIONAL BUREAU OF WIPO, *Basic Notions of Copyright and Related Rights*, WIPO/CR/GE/00/1, 2000, Para 52.
Available at: http://www.wipo.int/export/sites/www/copyright/en/activities/pdf/basic_notions.pdf

[59] World Intellectual Property Organization, *Guide to the Rome Convention and to the Phonogram Convention,* WIPO Library, Geneva, Switzerland, 1981, at 11.

the presentation of works to the public are protected under neighboring rights in the civil law tradition.[60]
The difference between the approaches of these two mechanisms when it comes to the protection of broadcasts in specific situations shall be illustrated in the subsequent parts of this paper.

## 2.4. Protection of broadcast signals

On December 2, 2011, South Korea introduced in the KCA, *inter alia*, two provisions that refer specifically to broadcast signals and pre-broadcast signals as objects of protection. One is article 104-4 that prohibits the manufacturing or sale of devices used for decoding broadcast signals, and the transmission or even the viewing and listening of those signals without authorization. The other is article 104-7 that prohibits the act of transmission of pre-broadcast signals. The concept of broadcast signals is new in the copyright law and the means for their protection is unique compared to those for other objects of protection.[61]
The term 'broadcast signals' is not specifically defined in the KCA. The Act specifies only the term 'coded broadcast signals' in Article 2.8-2, which seems closer to the meaning of a technical protection measure.[62] As South Korea is a signatory to the Satellite Convention, it can be assumed that the Korean law approaches the same concept of signal with that in the Convention. Particularly, Article 1 of the Satellite Convention defines a signal as 'an electronically-generated carrier capable of transmitting programs.'
In fact, before the 2011 amendment, broadcast signals had already been an object of protection in the KCA. As mentioned, the Act defines 'coded broadcast signals' as 'electronically encrypted broadcasting signals to prevent or hinder a broadcasting service provider or a person who has obtained consent from a broadcasting service provider from receiving broadcasting without legitimate authority'. This indicates that when being 'coded', or 'encrypted', broadcast signals become a protected object by 'technical protection measures' that help prevent or control the unauthorized access to the broadcasts.[63] Circumventing technical protection measures is prohibited in Article 124.3(2) of the KCA 2009. According to the provision, also the act of providing, manufacturing, importing, transferring, lending, or interactively transmitting technologies, services, products, devices, or components thereof for the primary purpose of circumventing technological protection measures is deemed an infringement of copyrights or other rights protected pursuant to the KCA.[64]

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[60] GHOLAMREZA RAFIEI: '*The Possibility of granting new legal protection and IP rights to broadcasting organizations against the unauthorized exploitation of their broadcasts*', supra at note 10, 71 ff., at 71, 74
[61] KYONG-SOO CHOE, '*Protection of Broadcast Signals in Korea from the Perspective of Copyright Law*', Asian Business Lawyer Vol.11: 107, 2011, at 109.
[62] Article 2.8-2 KCA: The term 'coded broadcasting signal' means electronically encrypted broadcasting signals to prevent or hinder a broadcasting service provider or a person who has obtained consent from a broadcasting service provider from receiving broadcasting (limited to broadcasting by means of radio or satellite communications) without legitimate authority.
[63] Article 2.28 KCA: The term 'technical protection measures' means either of the following measures:
(a) Technical measures taken by a right holder or a person who has obtained the said holder's consent, in order to effectively prevent or control the access to works, etc. protected under this Act, in relation to the exercise of copyright or other rights protected pursuant to this Act;
(b) Technical measures taken by a right holder or a person who has obtained the said holder's consent in order to effectively prevent or control the act of infringing on copyright or other rights protected pursuant to this Act;
[64] Article 124.3(2) KCA 2009: 'Any act of providing, manufacturing, importing, transferring, lending, or interactively transmitting technologies, services, products, devices, or components thereof for the primary purpose of circumventing technological protection measures for copyrights or other rights protected pursuant to this Act by

Since the 2011 amendment, broadcast signals have become an individual protected item that is specified in Article 104-4 and 104-7 of the KCA. Article 104-4 entitled 'Prohibition against Circumvention of Encrypted Broadcast Signals, etc.' makes certain acts prohibited: First: manufacturing, modifying or delivery by any means of a device or system, knowing or having reasonable ground to know that the device or system is primarily aimed at decrypting encrypted broadcast signals without the authorization of the broadcasting organization; second: transmitting to the public decrypted broadcast signals for profit without the authorization of the broadcasting organization, knowing that such signals were decrypted without the authorization of the broadcasting organizations; or third: listening, watching or transmitting to the public decrypted broadcast signals without the authorization of the broadcasting organization.[65] These provisions seem quite strict, as they entail criminal penalties. Those who engage in the manufacturing, modifying or delivery of circumventing devices, or the transmission for profit act are punished by 3 years in prison or 30 million Korean Won (about 25,500 USD),[66] while those who involved in listening, watching or transmitting are punished by 1 year in prison or 10 million Korean Won (about 8,500 USD).[67]

Article 104-7 was introduced to prohibit the act of transmission of pre-broadcast signals:

'No person shall transmit signals that are transmitted to broadcasting organizations (except for cases intended for direct reception by the public) to any third party without legitimate authority.'

From the provision, the concept of pre-broadcast signals in the Korean law can be deemed similar to the one that has been generally accepted in the WIPO SCCR,[68] and corresponds with that in the Satellite Convention. Particularly, pre-broadcast signals are those intended not for direct reception by the public, but for use by broadcasting organizations in their broadcasts. Therefore, they are not broadcasting, but point to point transmissions, e.g., between two broadcasters by telecommunication links, or by links from the site of an event (a sports event for example) to broadcasting organizations for the purpose of enabling the latter's broadcasting of the event. Such transmissions can also take place in other cases, such as from some premises of the broadcasting organization to other of its premises, or the pre-broadcast transmission of programming from a broadcast network to its affiliated stations, or between program suppliers and broadcasting licensees. Normally, the pre-broadcast signals are broadcast to the public after

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such means as eliminating, modifying, or bypassing such technological protection measures without legitimate rights to do so shall be deemed an infringement of copyrights or other rights protected pursuant to this Act.' This provision was deleted in the 2011 amendment of the KCA.

[65] Article 104-4 KCA (Prohibition of Circumventing Encrypted Broadcasting Signals, etc.) No person shall conduct any of the acts in the following subparagraphs:

1.Act of manufacturing, assembling, modifying, importing, exporting, selling, leasing or delivering in other ways tangible or intangible measures including devices, products, major components or programs, etc. for the purposes of decoding encrypted broadcasting signals without authorization of broadcasting organizations, knowing or not knowing by negligence that the encrypted broadcasting signals are primarily used for such purposes; Provided, That the foregoing shall not be applied to subparagraphs 1, 2 or 4 of paragraph (1) of Article 104-2.

2. Where encrypted broadcasting signals have been decoded with legitimate authority, act of public transmission of decoded broadcasting signals, upon knowing such fact, to other persons for profit without authorization from the broadcasting organizations;

3. Act of listening, viewing or publicly transmitting encrypted broadcasting signals to other persons upon receipt of the signals knowing that such encrypted broadcasting signals were decoded without authorization from the broadcasting organizations.

[66] Article 136 (2).3-3 KCA.

[67] Article 137 (1).3-2 KCA.

[68] WIPO SCCR Eighth Session, Geneva, November 4 to 8, 2002, *Protection of broadcasting organizations: Terms and Concepts*, Working paper prepared by the Secretariat.

some editing of the contents, for example, through the addition of spoken comments and advertisements, etc.[69]

Despite the two signals-specialized provisions, Article 104-2 KCA, which focuses on the prohibition of circumventing technological protection measures, still plays an important role in protecting encrypted broadcast signals. While Article 104-4 prohibits acts manufacturing, modifying or delivery of circumventing devices, and transmitting signals decrypted without authorization, Article 104-2(1) inhibits the act of decryption itself without legitimate authority, either intentionally or negligently by such means as removal and alteration, or circumvention; the prohibition, however, is followed by a list of exceptions and limitations, which support the act of decryption for certain lawful uses.[70]

## 3. Korean broadcasting industry: Major technological changes

South Korea is listed in the category of developed countries with respect to TV penetration, the level of technological developments and platform availability.[71] Currently, in each region of the country, people can choose from the services of at least 5 to 6 different providers, including one cable TV operator, three IPTV operators, and one satellite broadcaster. In the digital age, the country's broadcasting industry has been undergoing transformational changes - Internet

[69] WIPO SCCR Eighth Session, Geneva, November 4 to 8, 2002, *Protection of broadcasting organizations: Terms and Concepts*, Working paper prepared by the Secretariat.

[70] Article 104-2 (Prohibition of Circumventing Technological Protection Measures)

(1) No person shall circumvent technological protection measures pursuant to subparagraph 28(a) of Article 2 without legitimate authority either intentionally or negligently by such means as removal and alteration, or circumvention, etc.: Provided, That the foregoing shall not be applied to any of the following:

1. Where a person who is engaged in studying encryption circumvents technological protection measures to the extent where it is necessary for studying any flaw or vulnerability of encryption technology applied to the works, etc. after legitimately obtaining the copy of the works, etc.: Provided, That the person has made a considerable effort to obtain authorization for the use necessary for the study from the right holders, but failed to do so.

2. In case of including components or parts that circumvent technological protection measures in technology, products, services, or devices in order to prevent minors from accessing online works, etc. harmful to minors: Provided, That this applies only to the cases not forbidden under Paragraph (2)

3. Where it is necessary to identify and disable capability to carry out undisclosed collection or dissemination of personally identifying information reflecting the online activities of an individual: Provided, That this shall not apply if it effects other persons to access to the works, etc.

4 Where it is necessary for national law enforcement, legal intelligence gathering or security, etc.

5. Where it is necessary for educational institutions and educational support institutions pursuant to paragraph (2) of Article 25, libraries (limited to non-profit libraries) pursuant to paragraph (1) of Article 31, or document management institutions under the Public Document Management Act to decide whether to purchase the works, etc.: Provided, That this applies only when any access thereto is impossible without circumventing technological protection measures

6. Where a person who uses programs with legitimate authority conducts decompilation of program to the extent necessary for compatibility with other programs

7. Where it is necessary for a person who has legitimate authority only to inspect, investigate, or correct the security of a computer or information and communications network

8. Where the Minister of Culture, Sports and Tourism determines and issues a public notice according to the procedures stipulated in the President Decree as it is deemed that the legitimate use of certain types of works, etc. is unreasonably affected or likely to be affected by the prohibition of circumventing technological protection measures. In such cases, such exception shall remain effective for three years.

[71] SCREEN DIGEST LTD., *Study on the Socioeconomic Dimension of the Unauthorized Use of Signals – Part II: Unauthorized Access To Broadcast Contents – Cause And Effects: A Global Overview*, WIPO Standing Committee on Copyright and Related Rights, Twentieth Session, Geneva, June 21 to 24, 2010 (SCCR/20/2), at 38

and TV service convergence, and a shift from the traditional TV business model based on a vertically integrated distribution network to a more individualized programing-based model.[72]
This paper discusses three of the major changes in the technological landscape in South Korea that have had the most significant impacts on the broadcasting industry, namely the introduction of the digital broadcasting technology, or the digitization of broadcasting, the penetration of the Internet, and the launching of new broadcasting platforms, specifically the Internet Protocol Television (IPTV).

## 3.1. Digitization of broadcasting

Traditionally, the distribution of audiovisual contents to mass audiences relied upon the analogue technology, in which audio or video recordings had their information converted on a one-to-one basis into a modulated radio wave signal.[73] The International Telecommunication Union defines the analogue broadcasting as 'the transmission of voices and images using electrical signals'. The invention of the digital broadcasting technology has dramatically changed the landscape of the broadcasting industry.[74] 'Digital technology' refers to a particular way of storing, converting, and transmitting data in binary numbers (0 and 1). A digital signal is superior to an analogue one because of its greater accuracy, versatility, efficiency, economy, interoperability with other electronic media, and capability of delivering large amounts of information in a given time.[75] The main reason of this advantage is compression. Particularly, the digital signal is largely compressed by one of two different compression algorithms, MPEG-2 and MPEG-4. MPEG-2 compressed signal typically uses roughly one fifth of the space required to transmit the comparable analogue counterpart. MPEG-4 can push this compression even further, to as low as ten per cent of the space that the analogue signal requires.[76]
The digital switchover of broadcasting has become a global trend,[77] and South Korea is no exception.[78] Digital switchover initiatives in South Korea began in the late 1990s.[79] The first Korean digital TV channels started broadcasting in 2001 and approximately 1.1 million DTV

[72] THE OECD GLOBAL FORUM ON COMPETITION, Competition Issues in Television and Broadcasting, 2013, at 203, available at http://www.oecd.org/daf/competition/TV-and-broadcasting2013.pdf/
[73] SCREEN DIGEST LTD., *Study on the Socio-Economic Dimension of the Unauthorized use of Signals: Part I: Current Market and Technology Trends in the Broadcasting Sector*, prepared for the World Intellectual Property Organization, Standing Committee on Copyrights and Related Rights, Nineteenth Session, 2009 (SCCR/19/12), at 7.
[74] GHOLAMREZA RAFIEI: '*The Possibility of granting new legal protection and IP rights to broadcasting organizations against the unauthorized exploitation of their broadcasts*', supra at note 10, at 28.
[75] WIPO SCCR Seventh Session, Geneva May 13 to 17, 2002, *Protection of broadcasting organizations*, Technical background paper prepared by the WIPO Secretariat, at 8.
[76] SCREEN DIGEST LTD., *Study on the Socio-Economic Dimension of the Unauthorized use of Signals: Part I: Current Market and Technology Trends in the Broadcasting Sector*, prepared for the World Intellectual Property Organization, Standing Committee on Copyrights and Related Rights, Nineteenth Session, 2009 (SCCR/19/12), 7 ff., at 7,8.
[77] As of late 2009, ten countries had completed the process of turning off analog terrestrial broadcasting, and many other countries had plans to do so or were in the process of a staged conversion (Table 2). The first country to make the complete switch to digital over-the-air (terrestrial) broadcasting was Luxembourg in 2006, followed by the Netherlands later in 2006, Finland, Sweden, Norway, and Switzerland in 2007, Belgium and Germany in 2008, and Denmark and South Africa in 2009. See, DONG-HEE SHIN, HAE-RYONG SONG, *The switchover to digital broadcasting in Korea*, Technological Forecasting & Social Change 79, 2012, at 1450.
[78] HYUNSUN YOON, *Lessons from Digital Switchover in South Korea*, Asian and Latin American Media Studies, Television & New Media Vol. 15(6) 538–550, 2014, at 538.
[79] HYUNSUN YOON, *Lessons from Digital Switchover in South Korea*, supra at note 78, at 541.

sets were sold in 2002.[80] Since then, in the country, digital broadcasting has been developed actively as a part of strategic vision of a national converged network that merges broadband, telephony and television. South Korea has already come far, being one of the world's leading countries in digital technology. It aims to become one of the world's best digital broadcasting nations and provides the highest-quality, cutting-edge services anytime, anywhere, with any devices.[81] On February 27, 2008, Korea Communication Commission (KCC) announced that its National Assembly had passed a special act that was aimed to stop analog TV broadcasting in 2012 and to encourage broadcasters to shift to digital broadcasting. Under the act, land-based TV broadcasters are required to cease analogue broadcasting on the date appointed by the President, before the end of 2012.[82] As a matter of fact, South Korea completed the digital switchover on December 31, 2012.[83]

The positive impact of digital technology on broadcasting is various. It has brought about new transmission techniques, new forms of broadcast presentation and distribution. At the same time, the capacity of transmission has vastly increased and the quality of sounds and images has improved dramatically. Also, digital technology has allowed for the creation and distribution of new broadcasting platforms and services, including Internet protocol TV (IPTV) and Video on demand (VOD).[84]

The digital technology has also paved the way for the introduction of new methods of broadcast signal protection, including better encryption, set-top boxes[85] and conditional access systems, which were rarely made use of prior to the digital era. These devices help to ensure that the rights holders are able to provide access only to those members of public who have paid for the subscription, and/or for those falling within a defined geographical region of broadcasting.[86]

## 3.2. Internet penetration

South Korea is one of the world's leaders in broadband penetration and Internet speed. In January 2006, it became the first country to achieve over 50% broadband penetration per

[80] DONG-HEE SHIN, HAE-RYONG SONG, *The switchover to digital broadcasting in Korea*, Technological Forecasting & Social Change 79, 2012, at 1451.

[81] See, DONG-HEE SHIN, HAE-RYONG SONG, *The switchover to digital broadcasting in Korea*, supra at note 80, 1447 ff., at 1447, 1448.

[82] DONG-HEE SHIN, HAE-RYONG SONG, *The switchover to digital broadcasting in Korea*, supra at note 80, 1451 ff., at 1451, 1452.

[83] See, HYUNSUN YOON, *Lessons from Digital Switchover in South Korea*, supra at note 78, at 539

However, after the digital switchover nationwide on the 31st of December 2012, some ten million households of analogue cable service subscribers are not yet converted. In addition, the Korean government still maintains an analogue system for TV transmissions across the border as the convertor boxes needed to view Korea's DTV on an analogue set are not available in North Korea (Yonhap News 2012; Interview with Son 2013).

[84] WIPO SCCR Seventh Session, Geneva May 13 to 17, 2002, *Protection of broadcasting organizations*, Technical background paper prepared by the WIPO Secretariat, at 7.

[85] A set-top box is 'an analogue or digital receiver and decoder that converts the signal received to one suitable for a standard television set. The set-top also performs certain conditional access functions and may run the software that enables interactive television services. Set-top boxes are widely used in digital terrestrial, cable, satellite and IP television, but less widely used for analogue services.' See, SCREEN DIGEST in London, *Study on the Socioeconomic Dimension of the Unauthorized Use of Signals – Part II: Unauthorized Access To Broadcast Contents – Cause And Effects: A Global Overview*, WIPO Standing Committee on Copyright and Related Rights, Twentieth Session, Geneva, June 21 to 24, 2010, at 82.

[86] SCREEN DIGEST LTD., *Study on the Socio-Economic Dimension of the Unauthorized use of Signals: Part I*: *Current Market and Technology Trends in the Broadcasting Sector*, prepared for the World Intellectual Property Organization, Standing Committee on Copyrights and Related Rights, Nineteenth Session, 2009 (SCCR/19/12), 7 ff., at 7, 8.

capita.[87] By 2005, it was the first country to complete the conversion from dial-up to broadband.[88] It also has the cheapest, fastest broadband in the world.[89] The Internet penetration rate in the country in 2015 is reportedly 89.9 percent.[90] About the Internet speed, as of 2015, South Korea has the fastest average internet connection in the world at 26.7 Mbit/s, with a peak internet connection speed of 95.3 Mbit/s according to the report State of the Internet published by Akamai Technologies,[91] which is nearly 40% faster than the next fastest country, Sweden, whose average internet speed is 19.1 Mbit/s, and almost five times faster than the world average of 5.6 Mbit/s.

The penetration of the Internet has had significant impacts on the broadcasting industry. A major change can be seen in the development of new transmission techniques. For example, nowadays, television signals can be transmitted via high-speed broadband connections, in which cable is used as the tool. This technique is employed mainly in IPTV services. The Internet has also given birth to new platforms of distributing audiovisual contents, for instance, webcasting. 'Webcasting' is a new model of contents delivery on the Internet providing automated and, possibly, personalized delivery of services. It normally refers to either on-demand uses or real-time streaming. In case of streaming, the user receives the audiovisual contents when it is transmitted, without retaining a copy of it. Streaming services function on the basis of 'pull technology', which means that the contents are delivered to the user upon request.[92] For example, recently, the main Korean broadcasters including KBS, SBS and MBC have started to upload audiovisual excerpts from their broadcasts to online platforms like YouTube.[93] Those platforms are not only promotion channels for their broadcast programs, but also a source of revenues, as the platforms, such as YouTube, subscribe for the videos' view numbers.

### 3.3. Launching of Internet Protocol Television and Video on Demand service

Internet protocol television (IPTV) refers to a digital television service delivered to subscribed consumers by using a broadband Internet connection. The prerequisite for IPTV are the spread of broadband and the construction of the infrastructure for convergence environment.[94] In order to use IPTV, a subscriber is first required to have a home Internet connection. Upon subscribing to the IPTV service, he will have a set-top box installed and connected to his TV

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[87] TOMI T. AHONEN, JIM O'REILLY, *Digital Korea: Convergence of Broadband Internet, 3G Cell Phones, Multiplayer Gaming, Digital TV, Virtual Reality, Electronic Cash, Telematics, Robotics, E-government and the Intelligent Home,* Futuretext, London, 2007, at 173.

[88] TOMI T. AHONEN, JIM O'REILLY, *Digital Korea: Convergence of Broadband Internet, 3G Cell Phones, Multiplayer Gaming, Digital TV, Virtual Reality, Electronic Cash, Telematics, Robotics, E-government and the Intelligent Home,* supra at note 87, at 174.

[89] MARK MCDONALD, *Home Internet May Get Even Faster in South Korea,* The New York Times, Feb.21, 2011.

Available at http://www.nytimes.com/2011/02/22/technology/22iht-broadband22.html?_r=0/

[90] Information available at http://data.worldbank.org/indicator/IT.NET.USER.P2?year_high_desc=true/

[91] Information available at https://www.akamai.com/it/it/our-thinking/state-of-the-internet-report/global-state-of-the-internet-connectivity-reports.jsp/

[92] WIPO SCCR Seventh Session, Geneva May 13 to 17, 2002, *Protection of broadcasting organizations*, Technical background paper prepared by the WIPO Secretariat, at 11.

[93] Some YouTube channels of Korean broadcasters are available at:
https://www.youtube.com/user/kbsworld/
https://www.youtube.com/user/MBCentertainment/
https://www.youtube.com/user/entertainmentSBS/

[94] MILIM KIM & MINORU SUGAYA, *IPTV in Korea and Japan,* Keio University, Japan, 2006, at 1.

and to an Internet line. Installed within the set-top box is software capable of decoding the encrypted program data transmitted from the IPTV service provider over the Internet connection for display on a television screen. Using a remote control, the viewer can select and view programs in real-time or access video-on-demand (VOD) contents.[95] This service can also be utilized on a personal computer (PC) or other Internet-enabled portable devices other than a television.[96] Contents providers include both major media producers, such as TV channels, motion picture studios, as well as other professional and amateur contents originators, such as participants in peer-to-peer contents sharing. For example, in Korea, consumers and consumer groups can also create contents, and it can be shared through the set-top box.[97] IPTV is totally different from the Webcasting service discussed in sub-paragraph 3.2. While Webcasting is mostly an open service provided free of charge, IPTV is provided only to IPTV subscribers through a closed system.[98]

Korean IPTV services, started in the beginning of 2009, have been skyrocketing due to the rapid growth of Internet access. In spite of the late introduction of IPTV in Korea compared to some other OECD countries, the increase of IPTV subscribers in Korea has been remarkable. In 2012, the three main IPTV providers, KT, LGU+ and SK Broadband, were adding some 30,000 to 40,000 new subscribers each week. As of December 2014, the three IPTV enterprises had reached more than 10 million subscribers.[99] To provide the audience with broadcast programs via IPTV, agreements were reached between the service providers and broadcast contents owners in the market. Particularly, KT signed agreements on re-transmission of broadcasting services with all the three main national broadcasters, namely KBS, SBS and MBC, while SK Broadband and LGU+ signed agreements with KBS and SBS.[100]

The IPTV service in Korea is regulated under the Internet Multimedia Broadcasting Business Act as 'Internet multimedia broadcasting'.[101] Article 2.1 of the Act defines Internet multimedia broadcasting as 'broadcasting which provides various contents, including data, pictures, voice, sounds and electronic commerce, including real-time broadcast programs, to users through television receivers, while a two-way Internet protocol guarantees the specific quality of services, using a broadband integrated services digital network'. This definition corresponds all the main features of IPTV including digital contents, broadband connection basis, and interactive technologies that allow viewers to watch the contents either in real time or on demand.

## 3.4. Possibilities of violation stemming from the technologies

[95] DOUG JAY LEE, MISUNG KIM & JONG WON HONG, *The advent of IPTV service environment and possible IPTV service provider's legal liabilities for copyright infringement*, Korea APAA Copyright Committee, Special Topic Report 2009, at 1.

[96] PAUL GANLEY, *Copyright and IPTV*, Computer Law & Security Report, 2007, at 4.

[97] JUNGHEE HAN, CHANGRYUL KIM & KAILASH JOSHI, *Analysis of Internet Protocol Television (IPTV) Evolution in Korea: An Open Innovation Perspective*, Taylor & Francis Group, Journal of Information Technology Case and Application Research, 17:2, 93-107, 2015, 95 ff., at 96.

[98] DOUG JAY LEE, MISUNG KIM & JONG WON HONG, *The advent of IPTV service environment and possible IPTV service provider's legal liabilities for copyright infringement*, supra at note 95, at 2.

[99] JUNGHEE HAN, CHANGRYUL KIM & KAILASH JOSHI, *Analysis of Internet Protocol Television (IPTV) Evolution in Korea: An Open Innovation Perspective*, supra at note 97, at 98.

[100] MIN CHO, *Live broadcast contents for South Korean IPTV service: will it take off?*, Asia Pacific Market Insights, Frost & Sullivan, 2009, at 2.

[101] Act No.11690, 23 Mar 2013. Enforcement Date 23 Mar 2013.

The digitization of broadcasting, the Internet penetration and the IPTV service, besides their advantages, have brought about certain threats to broadcasters with regard to their broadcasts. The situations when broadcasters have their broadcasts accessed, exploited or distributed without consent can be anticipated as follows:

- *Unauthorized reproduction*: Due to the fact that the digital technology has compressed the broadcast signal by significantly reducing the amount of data and information required for broadcasting, the digital signal takes up substantially less space than its analogue counterpart. The signals, therefore, are portable to be easily fixed into audiovisual files, stored in a computer and moved from a device to another, allowing for an infinite number of copies of them to be made and distributed without any noticeable deterioration in quality.[102] The unauthorized reproduction of broadcast signals or broadcast contents has accordingly become ever easier, faster and cheaper in the digital age. This worrying phenomenon can hardly be resolved effectively by either technological or legal measures, especially when the unauthorized reproduction is done with private devices.
- *Unauthorized re-transmission*: The Internet penetration and the introduction of new platforms have facilitated the illicit re-transmission of broadcast contents. Browser-based services have simplified the way contents can be streamed and watched online, enabling a larger proportion of audience to gain access to the audiovisual works. Moreover, viewers are often unaware that the contents they are watching is illegal, and further believe that online contents are free.[103] These have resulted in the decreasing number of subscribers to conventional TV platforms, and the increasing amount of viewers who choose to watch TV programs on illegal free sources on the Internet.
- *Unauthorized distribution:* The nature of IPTV, including the provision of VOD services, has created a favorable condition for the audiovisual contents of broadcasts to be widely shared among IPTV users, and in public networks. The emergence of peer-to-peer (P2P)[104] services has further promoted the illegal file sharing, with the availability of a wide range of contents on the Internet. Especially, the combination of the IPTV, VOD service and P2P networks can lead to complex cases of unlawful distribution, which will be an object of scrutiny in the following part of this thesis.
- *Unauthorized decryption of coded signals*: Another type of infringement stemming from the digital technology, and especially the IPTV service, is the circumvention of technical measures aimed at protecting broadcast signals, including encryption, set-top boxes and conditional access systems, in order to get unauthorized access to the coded signals for both commercial and non-commercial purposes.

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[102] SCREEN DIGEST LTD., *Study on the Socio-Economic Dimension of the Unauthorized use of Signals: Part I: Current Market and Technology Trends in the Broadcasting Sector*, prepared for the World Intellectual Property Organization, Standing Committee on Copyrights and Related Rights, Nineteenth Session, 2009 (SCCR/19/12), at 8.

[103] SCREEN DIGEST LTD., *Study on the Socioeconomic Dimension of the Unauthorized Use of Signals – Part II: Unauthorized Access To Broadcast Contents – Cause And Effects: A Global Overview*, WIPO Standing Committee on Copyright and Related Rights, Twentieth Session, Geneva, June 21 to 24, 2010 (SCCR/20/2), at 6.

[104] Peer-to-peer (P2P) is a form of Internet based network architecture wherein the participants/users are both consumers and suppliers, as opposed to a client-server based approach where the consumer only downloads material from the server/supplier. A P2P network relies on the increasing participating of users to increase the network throughput, and does not use centralized servers to store the material. See, SCREEN DIGEST in London, *Study on the Socioeconomic Dimension of the Unauthorized Use of Signals – Part II: Unauthorized Access To Broadcast Content – Cause And Effects: A Global Overview*, WIPO Standing Committee on Copyright and Related Rights, Twentieth Session, Geneva, June 21 to 24, 2010 (SCCR/20/2), at 82.

## 4. Protection of broadcasters' rights concerning technological changes: How Korean law works

This part of the paper illustrates how Korean law, in particular the Korean Copyright Act, deals with several types of violation of broadcasters' rights in the changing technological landscape with the introduction of the digital technology, Internet penetration and the IPTV, including the VOD service. To this end, certain provisions in the KCA will be analyzed, concerning how they deal with the infringement in two hypothetical cases, namely 'streaming' and 'P2P file sharing'.

### 4.1. Case 1: Streaming

As an example, a Korean IPTV service provider forms a partnership with a broadcaster. According to their contract, the IPTV provider receives the broadcast signals from the broadcaster and retransmits them online via broadband connection. The signal is encrypted, and only those who subscribe to the IPTV service have a set-top box installed and connect to their home devices, which decrypts the signal into audio-visual contents and display them on screen. The customer can choose to watch the broadcast in real time or via the VOD service. One day, *an IPTV user receives a broadcast and streams it online using a real-time streaming protocol*.[105] This kind of network allows other users to watch the broadcast contents simultaneously with the streamer while he streams the contents. To scrutinize the situation, the following questions should be studied:

- ***What kind of acts has the IPTV user in question done in the context of copyright law?***

The user's act has constituted the 'public re-transmission' of the broadcast contents. In particular, to identify the act, specific terms in the Korean Copyright Act should be examined. Article 2.7 KCA defines the act of 'transmission' as transmitting works, stage performances, music records, broadcasts or database by means of radio communication or wire communication so that the public may receive them or have access to them.[106] This definition corresponds with the act of streaming the broadcast online by the IPTV user, whether he streams the broadcast simultaneously with the original, or at a later time. The streaming act by the IPTV user can also constitute the 'rebroadcasting' of the broadcast.
In the case of deferred transmitting, a fixation of the broadcast has to be made. The user's act in this case constitutes also the reproduction of the broadcast specified in Article 2.22 KCA.[107] However, in the case the audiovisual file is provided for him via VOD service, he may not need to carry the act of fixation or reproduction by himself.

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[105] Real Time Streaming Protocol, or RTSP, is an application-level protocol for control over the delivery of data with real-time properties. RTSP provides an extensible framework to enable controlled, on-demand delivery of real-time data, such as audio and video. Sources of data can include both live data feeds and stored clips.
See, H.SCHULZRINNE; A. RAO; R. LANPHIER; *Real Time Streaming Protocol (RTSP), The Internet Engineering Task Force (IETF)*, 1998, at 1. Available at https://tools.ietf.org/pdf/rfc2326.pdf/

[106] Article 2.7 KCA: 'The term 'public transmission' means transmitting works, stage performances, music records, broadcasting or database (hereinafter referred to as 'works, etc.') by means of radio communication or wire communication so that the public may receive them or have access to them.'

[107] Article 2.22 KCA: 'The term 'reproduction' means a fixing on a tangible object temporarily or permanently or a remaking by means of printing, photographing, copying, sound or visual recording, or other means; in cases of architectural structures, it means to execute construction works in accordance with the models or plans for the relevant construction works.'

***- How do the exclusive rights come into play? How is the situation different if the audio-visual contents are protected and not protected by copyright?***

If the contents are protectable works under copyright, they can be protected by exclusive rights granted to copyright owners, including the right of public transmission in Article 18 KCA.[108] The streaming act by the IPTV user therefore infringes the transmission right of the contents owner, whether the act is done simultaneously with or after the original broadcasting.
If the contents are not protected by copyright, then the broadcaster has only neighboring rights over the broadcast. If the streaming act is carried out in real time, the right of rebroadcasting in Article 85 KCA applies.[109] This is, however, not the case when the streaming is deferred. As the provision covers only the simultaneous rebroadcasting, the broadcast owner may not have the right to prohibit a deferred rebroadcasting act, or the rebroadcasting of the fixation of the original broadcast contents. In a normal deferred rebroadcasting case, the broadcaster may protect the broadcast by the right of reproduction (or fixation). Nevertheless, as mentioned above, the user of an IPTV service may not necessarily fix or reproduce the broadcast contents on his own, as the fixations are readily provided for him via the VOD service.

***- How is the situation different when the signal is decrypted without authorisation?***

This situation involves several acts that infringe the protection of broadcast signals. Particularly, the act of decrypting the signal falls into the incapacitation of technical protection measures that is prohibited under Article 104-2 KCA. The act of transmitting the broadcast in question by the IPTV user, act of listening and viewing the broadcast by other people in public networks constitute the infringements specified in Article 104-4.3 KCA. In this situation, whether or not the broadcast contents are protected under copyright is irrelevant in constituting such infringements.

## 4.2. Case 2: Peer-to-peer file sharing

A Korean IPTV service provider forms a partnership with a broadcaster. According to their contract, the IPTV provider receives the broadcast signals from the broadcaster and retransmits it online via broadband connection. The signal is encrypted, and only those who subscribe to the IPTV service have a set-top box installed and connect to their home devices, which helps to decrypt the signal into audio-visual contents and display them on screen. The customer can choose to watch the broadcast in real time or with the service of VOD. One day, *an IPTV user receives a broadcast fixation from the VOD service and shares it on a P2P network*, for example, a BitTorrent protocol.[110] This network allows for sharing audiovisual works using torrent files. A torrent file is a computer file that contains data about files and folders to be distributed, which enables other users to find their wanted files stored in the distributor's computer. A torrent file does not contain the content to be distributed, but only the information

[108] Article 18 KCA: 'The author shall have the right to transmit his/her work in public.'
[109] Article 85 KCA: 'Broadcasting service providers shall have the right to send out their broadcasts on a national network simultaneously.'
[110] BitTorrent is a protocol for distributing files. It identifies content by URL and is designed to integrate seamlessly with the web. Its advantage over plain HTTP is that when multiple downloads of the same file happen concurrently, the downloaders upload to each other, making it possible for the file source to support very large numbers of downloaders with only a modest increase in its load. See, BRAM COHEN, The BitTorrent Protocol Specification, BitTorrent.org, 2008. Available at http://www.bittorrent.org/beps/bep_0003.html/

about those files. Other users, after obtaining the needed information, get access to the distributor's device via the BitTorrent protocol and download the intended audiovisual works. The distributor in this case need not directly upload the audiovisual file, but only the torrent file.[111]
The situation can be studied by answering questions similar to those in the previous case:

***- What kind of acts that has been done in the context of copyright law?***

The sharing of the broadcast's fixed audiovisual file by the IPTV user on a P2P site can constitute an act of 'distribution' specified in Article 2.23 KCA. 'Distribution' is defined by this provision as 'a transfer or rental of the original or its reproduction of the works, etc. to the public with or without payment.' The act of reproduction, or fixation, in the law can also be constituted, but in the case of VOD services, the subscriber need not make the fixation by himself.
Meanwhile, the downloading of the audiovisual files by other IPTV users falls into the act of reproduction in Article 2.22 KCA.

***- How do the exclusive rights come into play? How is the situation different if the audio-visual contents are protected and not protected by copyright?***

In the situation when the audiovisual contents are copyrightable, the owner has the exclusive rights to the distribution of the audiovisual file, according to Article 20 KCA.[112] The sharing by the IPTV user, and the downloading by others on the Internet, accordingly has infringed this right of the contents owner.
The situation is different when the contents are not protected by copyright. The broadcaster in this case can protect the broadcast fixation only by its neighboring rights, which do not cover the right of distribution. The only right that can be employed here is the right of reproduction in Article 84 KCA.
Commonly, the broadcaster can use the reproduction right to seek redress from the user who fixes the broadcast contents, or uploading it to public networks, and other Internet users who download the file. However, the situation regarding the VOD service and P2P network is more complicated than usual. With the VOD service, the IPTV user receives the audiovisual file of the broadcast contents from the provider, without having to make a fixation himself. The P2P service, on the other hand, enables the user to share a file without uploading, or reproducing it. On a P2P network, the file owner simply allows others to get access to his computer and download the file. In this case, only the downloader reproduces the broadcast, infringing the reproduction right of the broadcaster in the KCA. It becomes problematic when a foreign downloader implements the act in another jurisdiction, then the reproduction right can hardly be effectively enforced, due to the territoriality principle of intellectual property law. Consequently, the right owner has great difficulty to stop the infringing acts by both the distributor and the downloader, who take advantage of the VOD service and P2P network.

***- How is the situation different when the signal is decrypted without authorisation?***

[111] See, BRAM COHEN, The BitTorrent Protocol Specification, BitTorrent.org, 2008.
[112] Article 20 KCA: 'The author shall have the right to distribute the original or reproduction of his/her work: Provided, That the original or reproduction of the work has been offered to a deal by means of sale, etc. with permission of the relevant holder of author's property right, the same shall not apply.'

Article 104-2 KCA, which prohibits the incapacitation of technical protection measures, applies in this case, whether or not the broadcast contents is copyrightable. The reproduction right of broadcasters in Article 84 KCA can be employed in order to prevent the act of downloading the audio-visual file of the broadcast.
From the two cases at issue, the provisions protecting decrypted broadcast signals proves to be an effective tool in preventing broadcast piracy, regardless of the copyright-ability of the audiovisual contents of the broadcast. Furthermore, this mechanism in the KCA shows an improvement in terms of protection scope to that in the Brussels Convention. Specifically, while the Convention limits the protection only to pre-broadcast signal,[113] the KCA covers signals in all stages of broadcasting.

### 4.3. Analysis on the gap between law and technological landscape

The two cases in sub-paragraphs 4.1 and 4.2 suggest a 'gap' between the Korean copyright law and the modern technological landscape regarding the protection of broadcast contents against possible infringements, including unauthorized acts of distribution and streaming.
In the 'streaming' case, when an IPTV user receives the fixed broadcast contents from the VOD service, he may stream the contents via a real-time streaming protocol without legal liability. Supposed that the contents are not eligible for copyright protection, the re-transmission right (Article 18 KCA) does not apply. The reproduction right (Article 85 KCA), which is commonly used to stop the act of fixing broadcasts, seems not to have impact in this case, since the IPTV user need not fix the contents by himself, but receives the audiovisual works from the VOD service. This indicates that the reproduction right granted to broadcasters, to some extent regarding modern technologies, is deficient in protecting the broadcast contents without the right of re-transmission. The addition of the re-transmission right to the neighboring rights of broadcasters, accordingly, might be considered as a solution for preventing corresponding infringements.
In the 'P2P file sharing' case, an IPTV user obtains the fixed broadcast contents from the VOD service, and allows other Internet users to enter his computer via a P2P network, namely a BitTorrent protocol, so as to download the audiovisual files. Supposed that the broadcast contents are not copyrightable, the right of distribution granted to authors does not work in this case. The contents can only be protected by the right of reproduction (Art.85 KCA), which inhibits others from fixing or reproducing the broadcast. Nevertheless, taking into similar consideration with the previous case, when the IPTV user does not fix the contents by himself, but receives them from the VOD service, the condition which helps the distributor avoid infringing the reproduction right. This, like the earlier case, suggests that the right of reproduction alone, to some extent regarding the penetration of the VOD service and P2P file sharing networks, is not sufficient in protecting the broadcast contents. One may consider the granting of the distribution right as a neighboring right to broadcasters as a possible solution.

## 5. Discussion on further solutions

The infringement of copyright and related rights on the Internet, or online piracy, is rampant in South Korea. In 2013, the piracy market in the Republic of Korea had a volume of 2.41 billion distributed works, the value of which was USD 372.8 million. Piracy online was seven times as high as offline, hence the economic loss that copyright holders suffer is greater with online than

[113] See Sub-paragraph 1.2 of this thesis.

offline piracy.[114] The reason of this phenomenon is that infringement is much easier and faster through an online platform, as discussed in the earlier parts of this paper.
As a giant exporter of media products, certainly, Korean broadcasters endure profit losses not only in the domestic market but also from foreign countries. Nowadays in China, Thailand or Vietnam where Korean broadcasts are particularly popular, Internet users can easily access to Korean TV programs on pirate sites by modern technologies, roughly at the same time with Korean residents, and long before domestic contents distributors in those countries can import the TV programs from Korean broadcasters. Meanwhile, the enforcement of broadcasters' rights outside is much more challenging than inside the Korean territory. In response to the widespread online piracy, in April 2009, the Korean National Assembly passed a new copyright bill that includes a 'three strikes' rule, which would disconnect the Internet connection of anyone caught repeatedly pirating copyrighted works via the Internet, despite protests from Internet companies and civil liberties advocates that it could jeopardize the freedom of expression.[115] This revision expresses the strong determination of Korean Government in fighting against online piracy.
This final part of the paper, in correspondence with the discussed legal and technological aspects in the earlier parts, will draw some possible solutions in enhancing the protection of broadcasters' rights in the changing technological landscape in South Korea.

## 5.1. Possibilities of more broadcasters' rights

Considering the cases analyzed in paragraph 4, extending the scope of neighboring rights granted to broadcasters is possibly a solution in the fighting against the infringement of broadcast contents. In other words, the approach proposed in this scene is to fill the 'gap' between the Korean copyright law and technological reality discussed in paragraph 4 of this thesis. Particularly, the right of re-transmission and right of distribution of broadcast contents after fixation can be granted to broadcasters as their additional neighboring rights, regardless of whether the contents are eligible for copyright protection. The approach can also be regarded as creating another 'layer' of broadcasters' right, strengthening their control over the fixed contents of broadcasts.
This opinion, nevertheless, should be scrutinized taking into account the social, economic and cultural situations of South Korea, as well as other relevant policies of the country. As clearly specified in Article 1 KCA, the main purposes of Korean copyright law are 'to protect the rights of authors and the rights neighboring on them and to promote fair use of works in order to contribute to the improvement and development of culture and related industries'. Correspondingly, apart from the protection of copyright and other rights owners, importance is firmly attached to the sound encouragement of the public access to scientific, artistic and literary creations, which helps to promote further intellectual creativity. The covering of broadcast contents under another level of rights, if made available, seems to contradict this policy, as it creates more burdens on the public users regarding their access to copyrighted works. In this case, the users are required to obtain the authorization not only from the copyright owners but also the broadcasters before they can exploit the audiovisual contents. It should be especially problematic when the contents already falls into the public domain and is

[114] SUNG-YEOL KIM, DAE-GYEYONG YANG, *Experiences with complementing ongoing enforcement measures in the Republic of Korea*, World Intellectual Property Organization, Advisory Committee on Enforcement, Tenth Session, Geneva, November 23 to 25, 2015, at 1.
[115] GYOOHO LEE, *Online and Offline Copyright Infringement in Digital Environment: An Overview of Korean Case Laws*, supra at note 61, at 1.

no longer copyright-protected, and the public users are still not free to use the audiovisual work without the broadcast owner's consent. This mechanism can be regarded as a two-layer barrier to intellectual works that significantly disadvantages the public audience.

Another factor that should be examined is the Korean culture. Historically, during the five centuries of the Yi dynasty (1392–1897), Korea was driven by the Confucian custom, which gave rise to certain lasting societal attitudes of the people in this country. In a long time under Confucian, Koreans viewed intellectual creations as public goods, rather than as private property, to be shared rather than exploited privately by the author. This cultural attitude has continued to exist in many Koreans' mindset until the present day, explaining for the slow acceptance of copyright in Korea.[116] Under these circumstances, if more burdens are imposed on Koreans in the case that 'another rights layer' is used to cover a broadcast content, they should have great difficulties adjusting themselves to the new regulation.

The third factor scrutinized is the reality of infringement. Indeed, among the Korean broadcasts that have been pirated, those whose audiovisual contents are already copyright-protected account for a large number, including films and musical shows. This fact means that even when the contents owners have sufficient exclusive rights to their audiovisual works including reproduction, transmission and distribution rights, piracy can be still rampant. Therefore, it is doubtful that the granting more neighboring rights for broadcasters, in respect of their fixed broadcast contents, will effectively put an end to the infringement of their rights.

## 5.2. Possibilities of non-legislative measures

In the cases discussed in paragraph 4, the acts of streaming and distributing the fixed audiovisual file of the broadcast both stem from the VOD service provided for the subscriber as part of an IPTV package. The VOD service allows users to receive broadcast fixations without having to fix or record the broadcast by themselves, thus keeping them away from the reproduction right infringement. The users are then free to re-transmit the contents via online streaming protocols, or distribute the fixations via P2P networks, if the broadcast contents are not copyright-protected. The obstacle to this phenomenon, in fact, has been approached by IPTV service providers themselves, relying on the law of contracts as follows:

- Usually, the IPTV service provider adopts a contractual restriction that prohibits its customers from watching the broadcast in devices other than televisions.[117] This regulation can limit the possibilities that the users stream and distribute the broadcasts by their PCs, the device which allows for higher interactivity on the Internet than televisions. If the users move the audiovisual files from televisions to their PCs, they clearly infringe the right of reproduction in copyright law.
- The IPTV service provider has also introduced contractual terms to their subscribers, according to which the subscribers must not stream or share the broadcast to any other third party, either at the same time or after the original broadcasting. This obligation is a simple way that provides the IPTV providers with direct control to the use of their programs by subscribers, and effectively prevents infringements resulting from modern technologies.

[116] ILHYUNG LEE, *Culturally-Based Copyright Systems?: The U.S. and Korea in Conflict,* Washington University Law Review Volume 79 Issue 4, 2011, 1120 ff., at 1121, 1122.

[117] DOUG JAY LEE, MISUNG KIM & JONG WON HONG, *The advent of IPTV service environment and possible IPTV service provider's legal liabilities for copyright infringement*, supra at note 95, at 5.

Clearly, compared to the introduction of a new copyright mechanism for broadcasters discussed in sub-paragraph 5.1, these non-legislative measures seem to be unpretentious to apply in preventing the unauthorized exploitation of broadcasts. On the other hand, they still help to keep a favorable environment for the public accessibility to intellectual and cultural products.

## 5.3. Final proposal

With regard to increasing threats from modern technologies, an objective of Korean law should be to protect broadcasters' rights effectively from those threats. In fact, while broadcast signal TPMs and live broadcasts have been granted quite strong protection mechanisms, fixed broadcast contents are more vulnerable to abuse. The law conferred on broadcasters only the reproduction right in order to prevent the violation of their broadcast fixations, which may not be sufficient in protecting the contents against various types of infringement done with new digital technologies and Internet platforms including unauthorized broadcast re-transmission and distribution. Accordingly, creating a new layer of neighboring rights for broadcasters, which includes the rights of re-transmission and distribution of fixed broadcast contents, should be considered a solution to that problem. This solution, however, should only be applied taking into account the socioeconomic and cultural situations of the country, the public benefit, and the efficiency of contractual measures.

More specifically, if the granting of such rights bars the public audience from their lawful use of the contents embodied by the broadcasts, to the extent that the barrier results is detrimental to common economic benefits, intellectual creativity and cultural development, such granting should not be employed. A calculator must be used in analyzing the balance between the benefit of broadcasters and that of the public. This is especially the case when contractual measures discussed in sub-paragraph 5.2 can still be relied on in preventing violation acts done by broadcast receivers.

In contrast, if the contractual measures appear inefficient in binding the broadcast receivers, to the extent that their violation acts result in rampant broadcast piracy, and serious losses that surpass the potential profit of broadcasters, then the legislative approach might be considered to be employed. In this case, the law should be able to give broadcasters and service providers more control over their broadcast contents by granting them more rights as discussed, a solution which helps reducing the unfairness and loss they suffer from piracy, and avoiding a 'net effect' that can lead to further social damage.

In fact, the approach of granting more rights for broadcasters over their fixed broadcast contents has been discussed at the WIPO's Standing Committee on Copyright and Related Rights, regarding a new international treaty's scope of protection. At the most recent session (33rd Session in November 2016), the member states agreed that the new treaty shall include mandatory protection for simultaneous and near simultaneous broadcast, namely, broadcast that is postponed due to time differences or technical delay only. Some have pointed out that '*we should not load an extra burden on the shoulders of the users except the burden of copyright clearance, as this will impede the use of very valuable broadcast contents, such as broadcasts that have historical or cultural value*.'[118]

[118] SHIRI KASHER-HITIN, Member of the Standing Committee on Copyright, Report on WIPO 33rd Session Standing Committee on Copyright and Related Rights (SCCR) November 14 to 18, 2016 Geneva, Switzerland, at 1.

## CONCLUSION

This paper has discussed problems regarding the protection of broadcasters' rights in South Korea in the context of technological development in this country. The remarkable changes in technologies that have impacts on the broadcasting industry include the digitization of broadcasting, the penetration of Internet that has given rise to new broadcasting techniques, services and platforms, and the introduction of IPTV, which goes hand in hand with the VOD service. While bringing about unquestionable opportunities for broadcasters, these technological changes have posed the risk that their broadcasts are infringed in easier and faster ways than before. The paper has discussed how the Korean legal systems protect broadcasters' rights against such infringements, including the unauthorized reproduction, transmission and distribution of their broadcasts, and the threat that their broadcast signals are illegally exploited. The final part draws some possible solutions that can help to improve the protection of broadcasters' rights in two different approaches. The first one is granting more neighboring rights to broadcasters over their broadcasts, which allows them to have more control to the fixed broadcast contents. This way of protection, despite being able to comprehensively protect the broadcast, is likely to be against the public benefit and the creativity promotion. The other one, which focuses on non-legislative approaches, seem to be more favorable to all the parties, including broadcasters, service providers and the public. To decide which approach is the preferable one, account should be taken into the social, economic and cultural situations of the country, as well as the balance between the benefit of broadcasters and that of the public.

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