Introduction. The Internet is a global system that allows transferring of digital information, data, or content across the network [1, 16 p]. This digital data is usually distributed, hosted or transmitted via ISPs which appears to be a key part of multimedia. According to Stokes, an ISP means “entities which provide Internet access and usually email accounts to their customers”. In practice, the service of ISPs is not free as ISPs may charge customers for using the Internet or other services and for the rental of digital space on their server to host data on behalf of third parties [2].

Nowadays, by hosting data from subscribers, ISPs are successfully running a business in a global market such as Youtube, Twitter, or Facebook. However, it should be mentioned that the service of ISPs has raised some legal risks or questions because some users may use their services for unlawful purposes. In most cases,
copyright holders complain that their creative works might be used without permission via ISPs services. Therefore, it has led to a lawsuit between copyright owners and ISPs around the world [3, 1 p]. The question of the article is whether ISPs are liable for online copyright infringement or Internet piracy taking place on their platforms. In order to answer the question, the author will evaluate the legislation and legal cases of the US and EU concerning the liability of ISPs for copyright infringement.

The article is structured into several sections. First, the general meaning and classification of ISP are introduced. Next, we analyze some essential legal cases about the liability of ISPs for indirect infringement. In the third section, we discuss legal acts and approaches adopted in selected states such as the US, the EU, and China to regulate secondary infringement on the Internet. Lastly, liability exemptions or safe harbor provisions for ISPs in selected states are comparatively evaluated, and we offer some recommendations for ISPs who are now functioning in the abovementioned states.

**ISP is a gate to the cyberspace.** According to some authors, there is a different interpretation with regard to the term “service provider” around the world, but it can be commonly named as an “intermediary” in most scientific works [4, 4 p]. Regarding this issue, the terms “internet service provider” and “online service provider” are used interchangeably in this article.

As stated above ISPs might be entities or communication organizations that provide Internet access to all users [5, 554 p]. Wherever a person is either at home or at work only an ISP helps him to connect the global network.

At the beginning of Internet technologies, ISPs used to rely on dial-up modems connected through simple telephone lines. Then at the end of the 1990s more powerful and quicker modems like DSL or cable modems showed up which increased the quality of ISP service. Today some ISPs around the world provide Internet access via popular fiber optic cables. So, some entities mostly offer cable connections whereas others use DSL net access.

It is worth mentioning that it is necessary to get a modem and an account to join an ISP. The next step is to attach the modem to a phone which lets directly to connect to the ISP. It is followed by the verification of the account and the assignment of the IP address. After getting the IP address, a user easily connects to the net. Moreover, by using a router the user can connect several devices to the Internet with the same IP address.

ISPs appear to be a sort of hub on the global network as they allow a direct connection to the net. There must be high bandwidth connections to the net due to a huge amount of messages or signals which ISPs usually handle [6].

Operating as intermediaries they usually charge users for using their services as an Internet connection. The ISPs may also offer other types of services to their subscribers such as website hosting, email access, domain name registration, and so on [7].

**Copyright infringement.** The problem of intermediary or ISP’s liability is not so straightforward. Most notably, issues usually emerge around some illegal activities such as hosting and transmission of child pornography or the infringement of intellectual property rights, especially copyright, trademarks, patents, and public rights. The rise of P2P networks and copyright infringements like music and movie piracies have led to a major challenge in the regulation of ISP making it different from that expected before. There is no denying that the development of new technologies, digital formats of copyrighted works such as computer software, images, and films can be shared on ISPs’ networks and this as a result has raised some fear among copyright holders [3, p 2].

Before analyzing some relevant cases it is worth mentioning that copyright infringement is normally divided into two types – primary infringement and secondary infringement. Primary infringement usually occurs when an individual reproduce, perform, broadcast or imitate creative materials without a permission of the copyright holder. In practice, to detect this sort of illegal activity can be done quickly and with very little effort. Secondary infringement appears when someone or commercial intermediaries help primary infringer to violate copyright.

In other words, a third party may involve in copyright online infringement [8, 617 p].
Playboy Enterprises, Inc v. Frena

It is noteworthy that at the beginning of the Internet development, some courts used to take tough approaches against ISPs. And most intriguing cases concerning the liability of ISPs originated in the US. For example, in case Playboy Enterprises, Inc v. Frena [9] the court found that an ISP operator Frena was liable for online infringement due to its users. The main issue was that the operator's subscribers uploaded some pictures from Playboy magazine and shared them on the ISP. Although the operator removed these images later and set up a controlling system after being warned by the claimant it did not help the ISP to be escaped from a penalty before the court. The court held that the Frena was anyway liable for direct copyright infringement even though it had a lack of knowledge and purpose relating the posting images [10].

Sega Enterprises Ltd, v. Maphia

Moreover, a similar decision was held in the case Sega Enterprises Ltd, v. Maphia [11], where an ISP operator asked its users to upload copies of Sega video games and let other users download the video games on their computer for money. According to the court, the ISP's poor information about the specific time when the games were uploaded and downloaded was inappropriate in liability issues. Although the ISP was not liable for direct online infringement, the court found that it was liable for vicarious liability which meant the ISP operator contributed to digital piracy [10].

Religious Technology Center v. Netcom On-Line Communication Services

Another intriguing case was Religious Technology Center v. Netcom On-Line Communication Services, Inc [12] where the claimant sued its ex-employee Erlich for sharing copyrighted works such as sacred writings of the Church on the Internet. Also, the claimant sued one of the famous service providers in the US, Netcom through which Erlich connected to the net. The claimant considered that the ISP was liable for direct, vicarious, and contributory copyright infringements. Firstly, the court was not persuaded about direct infringement, because the storage and the transfer of data is a key part of any ISP service and the accidental copying which frequently occurs in that service is unlikely to be examined as illegal copying. Secondly, regarding vicarious infringement, the court concluded that Netcom had not taken any financial benefits from an illegal activity because it operated on fixed costs. However, relating to contributory infringement the court found that the ISP was liable for that. Here the main question was whether the ISP had considerable involvement in infringing activity. In sum, the court argued that as the ISP allowed to distribute infringing works publicly and did not do anything to stop it could amount to the substantial participation in copyright infringement [12].

In the 1990s some would claim that ISPs had some covert interests in online copyright infringement for the reason that uploading or downloading copyright works could attract more users on their platforms. They also argued that compared to authors, ISPs were well positioned in monitoring the infringing activities of their users [10]. However, it should be mentioned that more sanctions or more restrictions for ISPs may threaten the autonomy of ISP's operation. Moreover, strict responsibility for digital piracy may reduce the efficiency of the Internet which depends crucially on the process of online providers. According to Jennifer Bretan, to provide freedom to operate online providers should be given liability exceptions, if not they may lose the stimulus to develop the net technologies [13].

Twentieth Century Fox Film Corp v Newzbin Ltd

One of the latest and significant cases was the Newzbin where a defendant was a Usenet indexing and file-sharing service which allowed its subscribers to search and download illicit copyright materials, in particular movies. It was admitted that one may download content so easily and fast by using the Usenet with Newzbin [14]. Some movie industries (claimants) sued the Newzbin by accusing of providing a facility for users to search for some illegal copies of movies and obtain access to these movies. To use Newzbin's service, its subscribers needed to pay fees. The service was accessible for its members and premium members who could download
the movies from files through Newzbin. And the Newzbin attempted to persuade others that its usenet was merely the same as Google. It is clear to say that the service’s subscribers involved in direct infringement as they were downloading unlawful copies of movies on usenet. But what is the role of Newzbin in this copyright infringement? For this question, the claimants claimed that the service has done three following wrongdoings concerning copyright infringement: First, the service authorized its subscribers’ illegal actions; second, it stimulated or supported the infringing activities of its members; third, it communicated the copyright holders’ content to the public, in particular, the users. Having analyzed these three wrongdoings a judge supposed that regarding the issue of authorization, it is plausible to say that a subscriber could understand from the defendant’s operations that the defendant had the authority to allow its subscribers to do whatever they want, actually to copy some movies on Newzbin service [15].

In fact, most members could download the movies which divided into sub-category by reference not only to the title of specific movies but also genres; turning to the second infringement the judge had no doubt the defendant indeed involved in secondary infringement as it aimed to violate copyrighted materials; And in relation to communicating to the public, the judge claimed that the defendant was a primary infringer because its service not simply provided a link to content, but also it “has intervened in a highly material way to make the claimants’ films are available to its users, providing a sophisticated system for downloading all the fragments of particular films’. Besides, the defendant knew all consequences of its infringing actions. Finally, the court held a decision that the Newzbin was liable for direct and indirect infringement [16]. Despite the defeat of Newzbin another website ‘Newzbin2’ appeared at the same online location where the previous one operated before. However, this time Newzbin2 operated in a different state. Then the claimants decided to struggle against it via ISP to block a website by relying on section 97A Copyright, Design and Patents Act (CDPA). In fact, they demanded the British Telecom in the UK to completely block Newzbin2 [2].

It must be recognized that at the outset of the Internet development, ISPs, particularly in the US soil went through a difficult period because of copyright infringement committed by subscribers on their platforms. In this regard, it is evident that some courts with a lack of knowledge were bewildered when they face a secondary infringement. As stated above each time the courts attempted to create some approaches like vicarious and contributory liabilities for the regulation of ISP’s responsibility.

**Liability rules and exceptions of ISPs in the US, EU, and China**

**The United States**

It should be admitted that compared with Congress the courts have taken a key role in examining the development of secondary liability in the US [17, 476 p]. The previous legal acts such as the 1909 Copyright act did not mention secondary liability at all, whereas the 1976 Copyright act considered it with fewer details. Some experts claimed that the act even though recognized indirect infringers, left the details of indirect infringement to the courts [3, 20 p]. Later the courts have created some notions of secondary liability such as vicarious liability and contributory liability relying on tort law.

As mentioned above to ensure ISP’s freedom to function or to support the development of Internet technology the US has adopted specific provisions named «safe harbor». As a rule, the safe harbor provision is aimed at giving legal motivations for ISPs to work together with copyright owners for a purpose of combatting copyright infringement as well as minimizing some restrictions against ISPs [18, 460 p]. Regarding to these provisions, online service providers can be excluded from some responsibilities for digital piracy.

Today the US has its own legal framework, the Digital Millennium Copyright Act (DMCA) which intends to limit the liability of ISPs. According to Section 512 of DMCA, ISPs must meet four requirements such as “conduit”, “caching”, “hosting” “information location tools” to be exempted from indirect infringement. First, to fulfill the “conduit” category the ISP must not start the access first; the entire process must be automatic to avoid the selection of the content;
moreover, users must not be chosen by the ISP. Second, in terms of the “caching” category, the content is made online accessible by a third party should be transmitted to another party, and stored automatically without any changes. Third, the “host” category means that the ISP must operate as storage in which any users can upload their contents [19]. The elements of this category are following: the ISP does not know that the content on the service is illegal; the ISPs must follow the “notice-and-takedown” system which means once they are notified about infringing action they must take measures to block or stop the material.

The European Union

Similar to the US regulation about secondary infringement, the EU has its appropriate directives such as the EU Copyright Directive [20] and the European Union Directive 2000/31/EC on electronic commerce [21]. Pursuant to the former directive, it states “Member countries should secure that a copyright holder can sue online providers if their services are used by a third party to infringe copyright materials”. But the directives do not provide specific rules on the injunction relief against service providers instead each member states have its conditions and models on the regulation of indirect infringement [3, 23 p].

For example, in Germany, it could be claimed that local courts usually rely on general tort law and case laws when they deal with indirect infringement. For instance, Articles 1004 and 803 of the German Civil Code regulate secondary infringement when a joint infringer induces or contributes to the illegal activity. And the court often examines whether the defendant has knowledge of illegal activity; whether the defendant has caused the damage and so on [3, 24 p].

In Italy, there are no direct provisions or clauses concerning indirect infringement, instead, local Italian courts count on either vicarious liability or the main principles of civil liability. According to the Italian Civil Code, which states that “a person must compensate injuries if he or she causes unreasonable damages to another person” or “if there are several persons who are infringing others’ rights, they are likely to be joint infringers” [3, 28 p].

In terms of limiting ISP’s liability, it could be argued that “safe harbor” provisions for ISP in the EU is slightly different from the US legal approach. For example, the Electronic Commerce Directive (E-commerce Directive) does not only focus on the liability of ISP but also it covers defamation, fake advertising, trademark, and other issues on e-commerce [21, 5 p]. Moreover, there are three exemption conditions for ISPs such as “mere conduit”, “caching”, “host” but there are no information location tools like hyperlinks. Another feature of European safe harbor for ISP is that there is no a notice-and-takedown system because it is believed that it may cause a threat to the freedom of expression and other human rights values. But it would be wrong that the system does not exist at all in the EU, because some member states already have a certain notice-and-takedown procedure [3, 37 p].

It is noteworthy that E-commerce Directive holds some basic principles concerning ISP’s liability, for example, the Member states are not allowed to force the ISP to monitor the information on their service; the Member states should secure that the ISP has to reveal the identification of subscribers who are constantly infringing when relevant competent agencies require it; injunctions with regard to the termination of the Internet access can be ordered by only special agencies or courts.

China

It could be argued that even though the articles of the Chinese Copyright Act have some rules concerning copyright infringement, there are no specific rules which regulate secondary infringement. So similar to some European states, the Chinese courts usually rely on the basic principles of tort law when they deal with indirect infringement committed by ISPs. Regarding digital piracy, the Supreme Court of China has made clear that whether the ISP triggers copyright violation or involves in the illegal acts committed by others, the ISP will be assessed as a co-infringer or share liability with others who are directly infringing copyright [3, 31 p]. Also, Article 36 of China Tort law states that
the victim of illegal actions is obliged to notify
the ISP to disconnect or block the infringer’s
site. If the ISP fails to take any measures, it is
likely to be jointly responsible for any damages.
So, it is worth mentioning that the Chinese
courts often examine indirect infringement by
observing whether the ISP is aware of copyright
infringement or whether it meets adequate duty
of care to stop infringing actions [3, 32 p].

It should be mentioned that before the
adoption of the Internet Regulation in 2006 there
used to be more and more difficult cases in which
the courts had troubles in resolving copyright
infringement on the Internet. Some tend to say
that the above act mostly relied on the DMCA
and the Directive on e-commerce as it had some
similar safe harbor provisions. However, there
are some own features concerning the Chinese
safe harbor for the ISP, for example, it is not
important whether the information transported
is going to be stored a long time; The ISPs in
China are not obliged to delete the illegal content
on their service even they are aware of unlawful
actions, while the DMCA and the Directive on
e-commerce usually require to remove it [3, 43 p].

The Internet Regulation appears to have a
notice-and-takedown procedure which quite
similar to DMCA 512. The procedure covers not
only the liability of ISPs but also clarifies how the
notice and counter-notice contents are going to
be applied [3, 39 p].

However, it has been argued that the
Chinese Internet Regulation does not have a
key rule which asks the ISPs to control content
or information which is stored or transmitted in
their networks, in other words, there is no general
monitoring liability. Therefore, it may result in
some misunderstandings or misinterpretations
among courts when they deal with copyright
infringement [3, 42 p].

Even though that liability exceptions have
been harmonized at some level in the above
jurisdictions, there are still certain differences
in regulation. For example, in the US local
courts have relied on case law; in EU various
rules are applied to the regulation of secondary
infringement; while in China courts usually
use joint infringement theory when they hold
a decision. Moreover, the US and China have
applied notice-and-takedown procedures as a
part of safe harbor provision, whereas in the EU
each member states developed their own rules [3,
p 10].

It is noticeable to say that when the DMCA
first adopted in the US, the EU and China
took their versions of the safe harbor for ISP’s
responsibility. Although there are differences
between these states’ safe harbor rules, one can
find out that the main aim of these rules is to
courage the ISP’s freedom to operate and foster
the Internet technologies. As discussed above, to
take advantages of liability exemptions, the ISPs
at least need to follow some general rules. First,
ISPs must not know about infringing activity on
their networks, or even they are aware of that
they have to immediately remove the infringing
material; second, the ISPs should not take any
economic benefits from infringing actions; and
third, while they face some infringers who are
constantly violating others copyright, some
measures have to be taken to cease them.

**Conclusion.** To sum up, it is plausible to
say that ISPs are playing an essential role in
the information society by providing a service
in which any Internet users can access, upload
and download information or communicate
with each other. However, this sort of popularity
of ISPs has led to a legal issue like online
copyright infringement, because some Internet
users share or download copyrighted materials
without permission. At the outset of the Internet
technologies, ISPs used to be liable for indirect
infringement committed by their users. Liability
exemptions or “safe harbor” rules have been
adopted by some states such as the US, EU,
and China so as to provide ISP’s freedom to
function and the whole of Internet development.
Therefore, some tend to say that there is a balance
or harmony in the regulation of ISPs in the above
states. Nevertheless, as it has been analyzed
above, liability exemption rules are different
in each state and courts still apply the rules
differently due to the law on their legal system.
Thus, ISPs may face legal problems when they
function in these jurisdictions. Moreover, in terms
of ISP’s liability for the Internet piracy, some

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Digital piracy: Responsibility issues of Internet service providers
courts’ decisions may cause obstacles for service providers to operate freely on the Internet.

It could be argued that ISPs are not responsible for indirect infringement committed by Internet users on their platforms if they obey “safe harbor” provisions according to the laws of the US, EU, and China. After examining the current regulation of ISPs in selected states, the article offers following recommendations: first, the Chinese service providers alike the US and EU counterparts should monitor copyrighted materials which uploaded or stored on their platforms; second, to prevent liability, ISPs should cease any inducement or encouragement actions to infringe copyrighted content because the courts in the US, EU, and China usually consider whether ISPs are promoting the illegal actions of Internet users on their platforms.

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Цифровое пиратство: вопросы ответственности интернет-провайдеров

Аннотация. Интернет-провайдеры (ISP) активно посещают наше информационное общество, поскольку их оценивают как привратников Интернета. Другими словами, они являются важнейшим технологическим инструментом, обеспечивающим доступ к Интернету. Основная функция интернет-провайдера заключается в передаче контента или материала через его сервис, но в последнее время такого рода функции были в сложной ситуации из-за некоторых юридических проблем. Не только общественность, но и правообладатели начали требовать, чтобы интернет-провайдеры отслеживали контент, передаваемый в Интернет, по причине того, что некоторые пользователи нарушают авторские права на сайтах интернет-провайдеров. Таким образом, это приводит к юридическому вопросу о том, несут ли интернет-провайдеры ответственность за цифровое пиратство их пользователей.

Ключевые слова: интернет-провайдер (ISP), авторское право, интернет, второстепенное правонарушение, нарушение авторского права, пользователь, безопасная гавань.

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қоғам өкілдері интернет арқылы таралатын акпараттарды қатаң бақылауды талап етуде. Бұл өз кезе-гінде «Интернет-провайдерлер оз веб-сайттарында немесе платформаларында орын алған интернет қарақшылық үшін жауапты ма?» деген құқықтық мәселені туғызды. Бұл мақаланың мақсаты – интернет-провайдерлердің оз пайдаланушыларымен жасалған интернет қарақшылық үшін жауаптылығын зерттей. Макаланың жаңашылығы – АҚШ, ЕО және Қытай заңнамаларын салыстыру жолымен қауіпсіз айлақ (safe harbor) туралы интернет-провайдерлердің жағдайын жақсарту туралы ұсыныстарды енгізеді.

Жоғарыда аталған сұраққа жауап беру үшін мақала авторы салыстырмалы-құқықтық, тарихи, формальды-құқықтық және формальды-логикалық әдістерді пайдаланады. Авторлық құқықбұзушылық үшін жауаптылығын алу мақсатында интернет-провайдер интернет пайдаланушыларының өз платформаларындағы заңсыз әрекеттерін қолдамауы тиіс. Сонымен қатар, мақала авторы қытайлық интернет-провайдерлердің интернет пайдаланушылармен бөлісетін немесе жарияланатын акпараттарды мұқият бақылау қажеттігі туралы ұсыныстарды енгізеді.

Түйін сөздер: Интернет-провайдер (ISP), авторлық құқық, интернет, қосалқы құқықбұзушылық, авторлық құқықбұзушылық, пайдаланушы, қауіпсіз айлақ.

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