



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Harmonization Between Intellectual Property Law And International Humanitarian Law

Apio Esther and Otim Enoch

Assistant Lecturer, Department of Public and Comparative Law, Faculty of Law, Victoria University, Kampala, Uganda.

Assistant Lecturer, Department of Public and Comparative Law, Faculty of Law, Victoria University, Kampala, Uganda.

Abstract

This study is premised on the increasing relevance of intellectual property rights and the concomitant growth of intellectual property law. This trend is likely to continue and intellectual property rights will be increasingly affected by armed conflict and other situations of violence, despite the assumption that certain intellectual creations are not intended to be used in such situations. It is important to protect these rights so that they are not lost through disregard or ignorance during times of war. On the other hand, there may be circumstances in which it is in the interest of humanity that intellectual property rights be limited or overridden to facilitate the flow of information or to ensure that necessary products are available at affordable prices. To strike an appropriate balance it is important to understand the relations between intellectual property rights and international humanitarian law from both protective and derogatory viewpoints. Furthermore, the application of intellectual property rights has the potential to both alleviate or aggravate a conflict situation or the suffering of victims, and understanding how this can be either avoided or encouraged is crucial.

Keywords: Intellectual Property Law and International Humanitarian Law

1. Introduction

Ownership of knowledge and control over information are principal driving forces in today's global economy. For this reason, it is important to ascertain the effectiveness of laws that protect these rights. The emergence of intellectual property rights (IPR) as a universal system of legal protection has led to the incorporation of intellectual property law into several internationally binding legal agreements, most notably the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). This heightened level of codification has provided a clearer understanding of what is classified as intellectual property and what rights are associated with it, thereby making it easier to identify and resolve issues associated with intellectual property in varying scenarios, including armed conflict (Seuba2020).

The introduction presents a background to the debate surrounding the current status of IHL and IP. Highlighting the significance of the issue of harmonization, this section queries whether enough has been done to address this relatively modern conflict, which transcends a dichotomy of peacetime and wartime in an era of transition. The portion on the overview of intellectual property explains that to understand the implications of protecting intellectual property during armed conflict, it is first necessary to have an understanding of what intellectual property law entails. The same is applied to international humanitarian law in the subsequent portion, both sections serve to give the reader a better understanding of the subject matter being dealt with in the following sections.

1.1 Importance of harmonization

In considering the humanitarian impact of intellectual property protection, it is extremely important to understand the nature of the pharmaceutical industry in the light of recent historical developments.

To properly consider the importance of harmonization between the two bodies of law, it is essential to understand the consequences of the law's dissonance, for it is the presence of deleterious implications at present or shortly that will provide the impetus for legal reform. It is difficult to gauge the full extent of these implications, given the recency of trips and the TRIPS agreement and the fact that substantive investment in intellectual property protection is a recent endeavor for many developing states (Spina2020). However, the present essay will consider two means by which the absence of harmonization between intellectual property law and international humanitarian law already finds deleterious expression and speculate on a third.

1.2 Overview of intellectual property law

Intellectual property (IP) rights, as commercial assets, are increasingly affected by armed conflict and are consequently regulated by international humanitarian law (IHL). It is generally accepted that the existing law needs to be developed to provide an adequate balance between the interests of right-holders and the public interest. However, it is also recognized that any new rules need to be consistent with the maintenance of innovation and creativity. The application of IHL to IP is a complex issue, as demonstrated by the fact that there are still fundamental disagreements as to its application to cultural property and that recent treaties to regulate specific types of IP have contained their own rules on the interaction with IHL. This paper therefore provides an overview of the existing law on the protection of IP in peacetime, as well as an analysis of its impact on the development and regulation of new rules specific to times of armed conflict. It concludes that whilst IP law is an important tool for the promotion of the progress of science and technology, it is not set in stone. There is scope to further develop the law to ensure that the protection and enforcement of IP rights correspond with the public interest, as well as the interests of right-holders.

1.3 Overview of International Humanitarian Law

International humanitarian law can be more intricate compared to intellectual property rights. It is an amalgamation of treaties and unwritten conventional laws that are considered obligatory by the states, in the spatial disposition of physical force, for the rights of hostile and the limitation of warfare, frequently referred to as the *jus in bello*. The central inhibitions to the conduct of armed forces are the philosophy of non-combatant immunity and the dictum not to cause unnecessary suffering. These principles are enshrined in treaty law and are also acknowledged as customary international law. IHL is primarily directed at state action, but this may also extend to warfare with non-state actors if they assume a sufficient level of organization or control. (Kumar, 2021). In the contemporary period, it applies to several international and non-international armed conflicts and is protectively favorable to individuals adversely affected by war. Customary law is mostly highlighted in state practice, and it's a general practice that is accepted as law. This can make it difficult to distinguish between general policy and moral obligations, and the identification of a specific rule may require broad consensus. The sources appealed to in IHL are provided in Article 38 of the Statute of the International Court of Justice.

2. Intersection between Intellectual Property Law and International Humanitarian Law

What "intellectual property" encompasses is highly varied, and thus how international humanitarian law interacts with each type of intellectual property differs. For example, rights over the intangible property of patents can be directly affected by war and conflict, while rights over cultural property/cultural heritage are protected under both intellectual property law and international humanitarian law. This intersection will be considered more closely in later sections; however, in all cases, it must be remembered that intellectual property rights are still private rights. Although there are differing opinions as to the degree such rights are or should be protected during times of conflict, it is accepted that the primary concern is still the application of humanitarian law to protect public interests and that any protection of intellectual property rights must not conflict with humanitarian law.

In the modern era, where many wars involve issues beyond territorial disputes, there is an increasing interface between international humanitarian law and human rights, and various intellectual property rights acquired under national, regional, and international laws. Protection of intellectual property rights in times of armed conflict is necessary to prevent the destruction or unauthorized use of intellectual property, to allow the owner of such property to commercially exploit it at a later date, and to prevent international relief and reconstruction programs from facing the same problems in rehabilitating a war-torn country. However, during situations of armed conflict, intellectual property rights, which are ordinarily designed to serve private interests, may clash with the public interests under international humanitarian law. The effect of armed conflict and the urgent needs of the victims may also jeopardize the interests of intellectual property rights owners. It is therefore said that the interaction between humanitarian law and intellectual property rights is a delicate balancing act (Walsh et al.2021).

2.1 Conflicts and challenges

Moreover, the situation in armed conflict may necessitate or make it very difficult to comply with the laws or practices of intellectual property in the territory of the other conflicting party or parties. On the other hand, the owner of the intellectual property may wish to maintain control over the use of his property or to prevent its use or exploitation by the enemy of the owner or certain state or non-state actors. The preservation of the neutrality of humanitarian assistance may also require avoidance of the use of intellectual property of certain conflicting parties (Papageorgiadis et al.2020). Non-governmental organizations and entities of the United Nations system will wish to know whether the use of certain intellectual property is likely to be consistent with their status and mission as well as with the practices of intellectual property.

Conflicts arise due to the diverging interests of states on the one hand and individuals and/or non-governmental organizations on the other about the protection or use of intellectual property in situations of armed conflict. States or intergovernmental organizations may wish to use or exploit intellectual property for military purposes or relief or assistance to persons affected by armed conflict. Often, they would prefer not to be encumbered by the permission, formalities, or the cost involved in acquiring the right to use another's intellectual property.

2.2 Balancing rights and interests

Rights, as bestowed to individuals or parties, are to an extent absolute, however, the law imposing such rights is not. They are generally premised on various norms or policies, while in certain circumstances said laws may express that they're subject to some limiting principle such as public policy or order. Intellectual property and international humanitarian law, despite their fundamental differences and different intended purposes, have experienced encroachment on each other's terrain. Due to the historical development and the adherence to conventional principles throughout international humanitarian law, one must first consider IP laws' effect on IHL. The application of IP laws can potentially hinder the actions of parties engaged in armed conflict and in certain cases may conflict directly with the IHL rules. As stated previously, IP laws are strictly premised on the importance of granting individual rights for economic incentives to achieve an end goal benefiting the public. Patents can be seen as a direct incentive for innovation while the monopolization of data can increase the

efficiency of an industry. This aspect directly conflicts with a rule such as the prohibition of the destruction of property that is not a military objective. The ICTY Blaškić trial judgment and the ICRC Customary IHL rule (Ruins that are not military objectives) both affirm that the customary rules of international armed conflict make no distinction between private and public property and that destruction/requisitioning of property that is not a military objective is prohibited. While the patent incentive benefits the public, the protection of IP itself does not. In the case of the monopolization of data, it's clear that in today's society, the majority of modern industry has evolved around the use of electronic communication and that the protection of data is an efficient and cost-effective method of increasing the rate and state it's produced. The same general idea applies to IP rights regarding the development of humanitarian aid. In several cases, aid organizations or even state armed forces are now engaging in a variety of activities to rebuild a nation's infrastructure (Gisel et al.2020). The notion of IP is significant here as often it is more efficient to use patented products to achieve an end goal, while the protection of data would mean easier long-term access to said activity. An example is the use of GIS and GPS technology in various relief and reconstruction activities. The recent conflict in the former Yugoslavia has seen a vast degradation of civil infrastructure, yet the applying provisions of the laws and customs of war on land to the use of these technologies are not necessarily intuitive. In such cases, it is often best understood by drawing inferences from existing law to similar civilian activities. Indiscriminate application of any IP law relevant to such activities here could prove detrimental to the overall mission.

2.3 Need for harmonization

The Geneva Conventions aim to alleviate as far as possible the inevitable sufferings of war, whether by protecting people who are not taking part in the hostilities or by limiting the means and methods of warfare. Intellectual property rules and regulations have been founded on the belief that the protection of ideas and proprietary information stimulates innovation and helps in the advancement of society. There is evidence that this belief does result in material benefits for some industries, but there is also a justifiable concern that the regulation of ownership of intellectual property may not always serve the broader interests of society. Intellectual property protection has provided monopolies for certain health-related innovations, and in these cases, it may negatively impact the availability of medical information or technology that could otherwise have been disseminated freely. On the other hand, there are many cases of technology transfer to parties in developing nations that result in exploitation of the absence of IP law in those nations. The development of international humanitarian law requires that a balance of interests be struck in areas of conflict between IP law and the broader societal interests. For instance, the unauthorized use of a protected technology or patented product may in some cases greatly benefit the victims of a disaster in a third world country. This could conflict with the rights of the IP owner and also conflict with the general principle that relief actions should not perpetuate dependency. In such a case where interests conflict, there must be clear rules to identify when derogation from IP law is permissible and what the consequences may be. In many cases, the absence of such rules tilts the balance of interests in favor of the IP owner.

3. International Treaties and Agreements

The Geneva Conventions hold a unique position as the primary codification of international humanitarian law, to which the majority of States are parties and also recognized as representing customary law. As noted earlier, the protection of victims of armed conflict is the primary objective of international humanitarian law and it is the Maintenance and Support agreements between the International Committee of the Red Cross and respective Conventions that aim to ensure the implementation of their provisions, that are most pertinent to the present study. The MSA has been described as an extraordinarily complex and flexible system that operates independently of the law of the treaties to which it is an annex. Although the ICRC is primarily concerned with ensuring that the Conventions are respected, the legal counsel will need to take into account the contents of the Conventions to fully appreciate the relationship between intellectual property rights and humanitarian law. Although complex, the MSAs add an extra layer of agreement that binds parties to the Conventions. This could be important in the interpretation of customary law and practice of States and may both directly and indirectly affect intellectual property rights (Li et al.2021).

The TRIPS Agreement is pivotal in the substantive movement to harmonize intellectual property law internationally. Controversy surrounds this agreement on several fronts. It has been claimed that the agreement reflects the general dominance of economic considerations in the field of intellectual property law, at the expense of other public interests such as health. Humanitarian law considerations notwithstanding, the argument that the agreement fails to achieve its objectives in all areas of intellectual property law because of resistance from developing nations is a pertinent point. Articles 7 and 8 of the agreement stress the importance of protecting intellectual property rights for foreign rights holders, provisions which may have a detrimental effect on technology transfer between nations and hence the socio-economic development of poorer nations. Such development is essential for the protection of the rights of victims of armed conflict. Furthermore, the recent decision by the WTO to allow the deferment of the deadline for least developed countries to implement TRIPS provisions to 2016 has provoked debate as to the effectiveness of the TRIPS agreement in achieving its objectives for all nations.

3.1 TRIPS Agreement

The TRIPS Agreement marked a significant development in the realm of international law and the organization of the international system. It was the culmination of work that had spanned almost a decade, starting in the 1980s in the Uruguay Round of Multilateral Trade Negotiations. The agreement aimed to tackle one of the perennial problems of international law, namely the relationship between the multilateral trading system and the system of non-trade issues, which have been enshrined in separate multilateral agreements because the contracting parties considered that these issues could not be satisfactorily dealt with within the framework of GATT 1947. These separate agreements had created legal and systemic fragmentation that had plagued both the GATT and the separate international agreements. The Agreement aimed to bring these agreements and GATT into one integrated legal system. It sought to do this by bringing the issues of intellectual property that were covered in some of these agreements into GATT and building a comprehensive system to cover all aspects of intellectual property. It has been said that TRIPS represents an exercise in "treaty harmonization". It aims to cause a significant approximation of laws and regulations of members to ensure a smooth function of the multilateral trading system. It does this by setting out standards, rules, and regulations in several intellectual property areas. It is argued that if countries are to comply with the agreement, they will have to create a consistent intellectual property legal environment. The agreement consists of 7 parts and a total of 73 articles. Part I lays down the general rules and basic principles of the multilateral trading system which are to be applied to the agreements that are brought within the GATT framework. The object here, as in the preamble, is to integrate the intellectual property system within the existing multilateral system and to set down basic, uniform standards for intellectual property protection. This is done by applying the fundamental GATT principles to the agreement. These principles provide the legal and systemic integration between TRIPS and GATT, which brings intellectual property issues under GATT and the dispute resolution system under Article 23 of the DSU.

3.2 Geneva Conventions

GCIV contains provisions for protecting civilians and members of the military who are no longer taking part in the hostilities, and it is only concerned with the protection of the persons who are not taking part in the hostilities. This is relevant from the IHL perspective. GCIV has provided a complete code of international humanitarian law to address the issues, and there are no alternative rules in IP laws that are contradictory to the IHL rules. The issues of IP law come into play when the war-affected countries and their governments attempt rehabilitation and reconstruction.

Geneva Conventions: The Geneva Conventions consist of four treaties formulated in 1949, and the additional protocols, that establish the standards of international law for the humanitarian treatment of the victims of war. The Geneva Conventions extensively codified the customary laws of war that have developed over the centuries. The treaties and protocols that are predecessors of the Geneva Conventions include the First Geneva Convention, the Second Geneva Convention, the Third Geneva Convention, and the Fourth Geneva Convention.

The Fourth Geneva Convention, also known as GCIV, provides a comprehensive system of protection for the victims of international or internal armed conflicts.

This section describes the treaties which are agreements between states and/or international organizations, and binding upon those states which are parties to it to the convention. Treaties are an important source of international law and are mentioned in Article 38 (1) (a) of the Statute of the International Court of Justice. Generally, the conventions and agreements are ratified by the member states and, after ratification, these are enforced into the domestic legislation of the member states using legislations and other subsidiary instruments. But once the state becomes a party to the convention, whether it enforces it into its legislation or not, the state is bound by the convention and has an obligation under international law.

3.3 Other relevant treaties and agreements

Several other international agreements have a bearing on the interaction of IHL and intellectual property, despite only being discussed intimately within academic circles. The Convention on Biological Diversity (CBD) is an agreement with three main goals: conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of benefits arising from genetic resources. The agreement also deals with traditional knowledge and the IPRs that are associated with it. Although the CBD does not specifically deal with IHL, the issues that it raises are inherent in the topic. The agreement considers that states have sovereign rights over their biological resources and the alternative methods of conserving and using genetic resources. This presents the possibility of conflict with IHL and the protection of these resources from seizure or destruction. In this case, the CBD may provide lessons on how to minimize direct conflict between IPRs and the protection of resources. The Doha Declaration is a less formal statement of the members of the WTO, made in Doha, Qatar on November 14, 2001. The declaration initiated a round of trade negotiations focused on cutting down tariffs and subsidies with assistance from less developed countries. There are many areas of contention in which conflict with IHL can or has arisen. This is an ongoing agreement that will likely present more issues relevant to IHL and intellectual property in the future.

4. Protection of Intellectual Property in Armed Conflicts

It is essential to note that armed conflict poses a major threat to the protection of IP for the warring parties and the international community as a whole. The susceptibility of information systems means that information, including confidential information and data, in digital form or hard copy, relating to IP is at risk of destruction, removal, or theft. The potential loss, damage, or removal of databases on patents, trademarks, and designs may have adverse effects on the IP system in a particular country and at a global level. Additionally, the removal of information relating to IP from the private sector, public bodies, or educational institutions could have negative implications concerning preserving knowledge and putting it into public use. This has consequences for the international community because it reduces the amount of patent information available for use in technological development and research on a global level, with flow-on effects for general economic and social welfare. Furthermore, the removal of such information may prevent a country from emerging from a conflict to rebuild IP systems and exploit the benefits of an IP system full of innovations (de et al.2022). An example of the latter is in modern-day Iraq where there is emphasis on helping the country to use its oil reserves as a means to fix the economy and public welfare. This process would be greatly assisted by the ability to use knowledge gained from patents relating to oil extraction and refinery.

4.1 Challenges and limitations

As mentioned earlier, modern intellectual property law consists of conventions and treaties. It is generally believed that international law agreements have a greater influence on the national law of member states than those adopted by international organizations. However, this is not necessarily true for intellectual properties. Due to the nature of intellectual properties, which are rights exercised over defined properties, they should have the same status in all member states to the extent possible. Nevertheless, the results vary depending on the convention and legal accessions to the treaties. The impact of war between state parties to the same treaty or

between states that have acceded to different treaties on the same issue can have an impact on intellectual property.

The protection of intellectual property in armed conflicts is an untouched subject in the laws of war and neutrality. These laws, which are developments of the former as applied in the context of collective security actions authorized by the United Nations, do not consider the impact of intellectual property law on the actual conduct of warfare or on peace treaties that conclude wars and the post-war period. During this time, it is important to preserve intellectual property rights. Traditional intellectual property law doctrines and principles do not consider armed conflicts, whether they are international or non-international conflicts (Houlihan, 2024). Currently, there is no rule under general international law regarding the attack on intellectual property under any circumstances. However, this does not mean that intellectual properties, especially those protected by conventions, are immune to acts detrimental to them during war. In many cases, the impact of war can result in missed opportunities for the protection of intellectual property.

4.2 Safeguarding cultural heritage

At the international level, safeguarding cultural heritage in armed conflicts has received considerable attention. However, the link between cultural heritage and intellectual property has not been thoroughly explored. Significant links can be made between cultural heritage and intellectual property, so much so that it can be said that an aspect of cultural heritage is a form of intellectual property. Article 1 of the UNESCO Convention concerning the protection of the world's cultural and natural heritage 1972 defines cultural heritage as being the "monuments, architectural works, and works of art... which are of outstanding universal value from the point of view of history, art or science". Due to the wide prevalence of armed conflicts, many cultural items are either purposefully targeted or are collaterally damaged or destroyed. This is especially so when such items are kept on museum display in the vicinity of military installations or in times of uprising when there is conflict between different ethnic or religious groups. Using the definition of cultural heritage and the examples of degradation or destruction, it's clear that under intellectual property law, specifically the area of protection of cultural goods during times of armed conflict, there is an overlapping of concepts. The armistice for the First World War was signed on the 11th of November 1918, yet the treaty of Versailles was not signed until the 28th of June 1919, 7 months later. During this period many valuable items had been looted from the countries of Central and Eastern Europe and it was felt that there were inadequate means of protection for the cultural property during wartimes. This led to the Roerich pact. Named after the Russian artist who initiated it and signed by the Pan-American Union (the Organization of American States after 1948), in the White House in Washington on April 15th, 1935 by twenty-one countries. The pact was to gain improved legal protection for cultural property in times of both war and peace and to ensure the respect of cultural property in the event of an armed conflict. The pact outlined that all institutions containing cultural property were to be identified with a special emblem (an extended version of the symbol of the pact) visible from a distance and protection from bombardment or attack was to be granted by both national and international non-governmental groups who agreed to adhere to the principles of the pact. Any move of cultural property to ensure its safety was to be monitored and recorded (Kim et al.2021). Although the Roerich pact was an agreement and not a law, the major part of it was a representation of the laws agreed on within The Hague Convention and its outcomes during the Second World War.

4.3 Balancing access to knowledge and innovation

It might therefore be argued that a balance of public interest considerations between IP rights and the requirements of IHL should, on occasion, lead to a limitation on the exclusion of certain data.

In the context of armed conflict, the need for access to protected data can be vital. For example, an occupying military force may need access to environmental data to prevent harm being caused to the local population or to make an assessment of which course of action will be least harmful to the environment when establishing what it is required to do under Rule 44 of Customary International Humanitarian Law. However, the data and its subsequent analysis must be consistent with the relevant principles of IHL, and the use of commercial data to locate a military action or as an aid for a decision that may affect the local population will often require an

assessment of whether such action conforms to the law and/or an assessment of the data's potential humanitarian impact.

The requirement that intellectual property regimes should provide fair and reasonable access to knowledge has been interpreted in differing ways, including an approach that focuses on the needs of developing countries, particularly public health. The concept is not well developed, however, and there is little consensus as to how an assessment of 'reasonableness' should be made.

5. Humanitarian Exceptions and Compulsory Licensing

States faced with public health crises, such as epidemics, pandemics, and other disasters, are increasingly invoking limitations and exceptions to patent and other intellectual property rights under TRIPS to facilitate access to affordable medicines and thus protect public welfare. In particular, the Doha Declaration on the TRIPS Agreements and Public Health has provided valuable and highly flexible guidance in promoting access to medicines. Articles 31 and 31bis, read with the waiver in the annex to the TRIPS Agreement, clarify that a compulsory license can be granted by a national government for the manufacture and export of generic medicines, predominantly for supply in other low or middle-income countries that lack their production capacity. Significantly, in response to changing circumstances and urgent exigencies, article 31bis permits a Member of the WTO to notify the Council for TRIPS of its decision to import an existing generic medicine rather than produce under compulsory license. In this case, the patent owner in the country where the medicine is to be imported is obliged to be adequately remunerated and the exporter must meet all the usual price conditions of the compulsory license (Štrba, 2021). However, there is no requirement for prior negotiations with the patent owner and exclusion of the effectiveness of compulsory licensing as a remedy, provided that notification only involves a limited number of licenses and does not extend beyond two years. These provisions are particularly relevant to patented pharmaceuticals and are indeed prompted by the difficulties faced, in the light of TRIPS, in ensuring access to new effective medicines, particularly for marginalized diseases in developing and least developed countries (Motari et al.2021).

5.1 Scope and Application

From a right holder's perspective, the recent discouragement of the use of the exception as a result of pressure from pharmaceutical industries is demonstrated by a decision of the Kenyan government to suspend its attempt to order antiretroviral and antimalarial drugs and to abolish plans for local production of these drugs under compulsory license. This was due to fears of regional trade sanctions and a loss of foreign investment regarding a recent bilateral trade agreement with the EU.

In the past, one of the main advantages of developing state use of the exception has been to defend actions in domestic law for the production or import of generic drugs and thus increase the availability of these pharmaceuticals. India recently attempted to import generic versions of antihypertensive pharmaceutical drugs for re-export to The Gambia with the consent of the World Health Organization. This was challenged by Merck because The Gambia had a high rate of cardiovascular disease and the necessary imports fell within a waiver of the exception to TRIPS provided by Article 31(f), which permits the export of pharmaceutical products manufactured under a compulsory license to countries which lack sufficient manufacturing capacity. This case is an exception to TRIPS but still allows the use of patented inventions and further defines "the importation of pharmaceutical products" construed in Article 31(g). India eventually lost a case in arbitration to determine the amount of South African government bond it had frozen as a result of another successful challenge under the same article by a German drugs company. This demonstrates that regardless of any exception, imports of pharmaceutical products will be seen as patent infringement under TRIPS, and compulsory licenses are often subject to challenge.

This subsection analyzes the applicability and scope of humanitarian exceptions in TRIPS and mentioned by states in making compulsory licenses, and how these decisions affect the availability of relevant pharmaceutical drugs in developing countries. The scope of application of humanitarian exceptions can be twofold. Firstly, as

a defense to an action of patent infringement, and secondly, as an authorization to use a patented invention without the consent of the right holder. In both respects, it protects from costly and potentially damaging litigation, but it may not provide any real commercial incentive for research and development into new drugs to treat neglected diseases.

5.2 Balancing public health and intellectual property rights

This exception not only allows the production of cheap drugs but also gives an importation right. A relying country can get the same drugs without manufacturing them, and the quality process will be maintained. Higher quality with the lowest prices is a demand of any customer, so those who make and consume drugs are demanding generic drugs. Now, generic drugs are a substitute for patented drugs and there is a higher chance that they are competitive. Only one patent holder fears that his drug will be substituted with a generic one. There are still many patented drugs that are substituted in the US and UK, but the patent holder has an outlet, "Substitution of certain articles of drugs". Usually, doctors use a less costly version or generic version, but patients are confused and the creation of laws is complex. This creates a barrier to new generic drugs and there is a higher probability that a failure of this may cause a restriction to producing generic drugs. So TRIP member countries and WHO tried to not lose sight of the substitute and creation of generic drugs. The new say is a very critical interpretation of the dispute between the US and Canada at DSB, so the creation and protection of a drug identity and a new interpretation with the scope of the future will need more research. However, any interpretation concludes that a patent holder can be prevented (Tenni et al.2022). This exception is known as parallel import.

Under Compulsory Licensing, the basic objectives are: to authorize a qualified person or government authority to engage in the otherwise infringing act of making patented medicines or importing them, usually from a country where they are being manufactured at a lower cost. - Ensure sufficient remuneration to a patentee for using his invention. This is a vital point to maintain the R&D incentives and there is a higher probability that the act of generic drug production will have a price reduction effect. - Avoid a general limitation or exception to patent rights, which decision-makers say today is optional for countries.

The Universal Declaration of Human Rights 1948 clearly shows that "everyone has the right to a standard of living adequate for the health of himself and his family, including food, clothing, medical care, and necessary social services." Patented drugs are a cause of barrier to the availability of the above-mentioned state in all countries. So generic drugs are a solution to achieve the universal declaration. But the problem is generic drugs create competition for patented drugs. High-quality inputs and low-cost production make generic drugs cheaper than patented ones (while attaining the same quality). A patent holder is not willing to lose his market and if his marginal revenue is less than the price, $MR=P$. So WHO developed an exception to this very critical issue between public health and intellectual property, in member countries of TRIPs? This exception is known as Compulsory Licensing.

When there is a human problem, humanity tries to solve it. Diseases are one of the major problems which humans are facing. There are two types of diseases: the first type has a cure but it is costly. The second type has a cure, but very cheap or generic drugs are available. For both types mentioned above, the aim is generic drugs. Patented drugs and generic drugs are examples of perfect competition and monopoly in economics. Generic drugs manufacture the same drug as the one that is patented by the innovator, but they use a new process and not an input. Patented drugs are a barrier to the availability of very costly drugs. So an inventor gets the right to prevent others from making, using, selling, offering for sale, or importing their patented invention. Here, in intellectual property rights, patents are very important (Makurvet, 2021).

The world is indeed obsessed with consuming drugs. Big brands of pharmaceutical industries are working as businessmen. "Public health" is a crucial word and an important issue of any legislation. Social welfare is an objective at which no one can point a finger. Available resources of healthcare are to be maximized for now and the future, also to meet the needs.

5.3 Case studies

The laws identified above have now been amended. But changes and amendments to legislation can take many years to accomplish, and in the meantime, few, if any, generics have entered the market. This has led to serious continuing access problems for the majority of South Africans. The impact of the amended legislation is not clear at this stage. However, it is stated that even if generics are available, the new changes will make it more difficult for doctors and pharmacists to provide a cheaper and effective alternative to many patented medicines (Mishuk et al.2020).

Subsequently, in October 1999, the Arbitrator stated that the United States of America is entitled to propose retaliatory measures of equivalent effects, seeming that the parallel importation has enough evidence to show that it has nullified or impaired benefits the United States of America could reasonably expect to accrue to their owned intellectual property (Keyter et al.2020). In November 1999, South Africa and the United States of America reached a Mutual Understanding as to the Implementation of the WTO Panel report. South Africa agreed to amend its Medicines and Related Substances Control Act no. 101 of 1965, and parallel importation would no longer occur, and the provision for generic substitution was nullified.

In April 1997, the United States of America (USA) filed a complaint against the Republic of South Africa under Article 63.3 of the TRIPS Agreement, the WTO Dispute Panel, regarding South Africa's domestic legislation to parallel import medicine and to allow generic substitution. This law was implemented to increase affordability and accessibility to essential medicines for the majority of South Africans who could not afford patented medicines. The pharmaceutical industry feared that this legislation would reduce their income and cause them to disinvest in South Africa, thus decreasing research and development of new drugs.

6. Enforcement and Remedies

Most legally binding norms are meaningless without effective enforcement. This is certainly true in the connected field of intellectual property rights (IPR) norms and international humanitarian law (IHL) rules. Generally, both the proprietary nature of IPR and IHL rules seek to protect an international public good. In the case of IPR, the creative and inventive effort is for the betterment of humanity; in the case of IHL, values are common to humanity and civilization. Consequently, it is in the common interest to ensure respect for these rules by preventing violations, and where they occur, providing remedies and sanctions. However, enforcement has been and will continue to be one of the most challenging areas in harmonization. Both IPR regimes and IHL have struggled to find third-party enforcement of rules and award of remedies. These obligations usually fall to the rule makers in IHL and private actors in IPR. Infringement of IPR occurring across borders into conflict zones is an area of particular concern due to activities of pirates and infringing parties taking advantage of lawlessness. Additionally, due to resource limitations, developing states and small players in the IPR field have found enforcement to be a low-priority area usually reserved for high-profile cases involving major players. IHL enforcement has historically focused on post-conflict trials and punishment of violators, an inefficient method given the transient nature of many belligerent parties and the high costs involved in tribunals and international or hybrid court proceedings (Walsh et al.2021). Third-party trials and adjudication of IHL are also more likely to be subverted by the foreign policy or bargaining power of an intervening state or major player in the host conflict. Here, the politics-envisioning of a new IP tribunal setting the rules for the game in the developing world may suffer similar problems.

6.1 Challenges in enforcement

Globalization and development in the field of technology have made it increasingly difficult to enforce domestic law in many areas. This is also true for IP laws. Many of the international laws like TRIPS are disguised forms of economic protectionism. Political pressure from powerful states and their industry lobbies can undermine effective enforcement in a conflicting state. An example can be seen from the early days when the US threatened trade sanctions against countries that tried to import cheap generic drugs. Developing states are often pressured to adopt laws that are not in their best interests (Swinnen et al., 2021). Lacking resources, they can find it hard

to adequately enforce the laws in favor of their people. This can be seen from the transition from article 66.1 to article 31 of TRIPS. It was a pyrrhic victory at best for developing states.

6.2 Remedies for violations

In the case where the occupation forces or an occupying power involves itself with the commercial exploitation of an occupied country, in particular where it sells the public assets of the occupied state, its instrumentalities, resources, and patrimony, this too may involve a violation of the intellectual property laws of the occupied country. If these laws are designed to protect cultural property, the general rule is that the property should be returned to its country of origin, or the country should be compensated, for example under the UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property 1970. Such measures may not be sufficient to restore the status quo ante, the property may have been so changed as a result of infringement that it cannot be effectively replaced. In this case, the successful demand for return or restitution of property may be supported by a measure of restitution in integrum. This will include both an injunction to prevent further infringement during any ongoing armed conflict and a mandatory order requiring the infringing party to restore the intellectual property or to terminate the exploitation of the property. This form of relief is particularly valuable where the property is the subject of cultural heritage and its damage or destruction would not be reparable. An example is found in the case of the Gabčíkovo-Nagymaros Project where Hungary brought an action before the International Court of Justice against Czechoslovakia claiming that the construction of the dam system by Czechoslovakia had caused damage to an area of international conservation Ramsar Convention 1971 and UNESCO Convention Concerning the Protection of World Cultural and Natural Heritage 1972 (Yas et al.2024).

6.3 Role of international organizations and courts

An additional part of the judicial process involves the interpretation of the law itself. In unique contrast to both systems of law, the ICJ can assess the legality of intellectual property claims as they conflict with the conduct of war. Because many intellectual property claims are relative to their benefit in comparison with similar existing products, it is feasible that certain claims pose an increased likelihood of their product being utilized in a situation of armed conflict or adverse humanitarian scenarios, such as medicines or food products. Should this be the case, the claim itself may be damaging to the extent that it helps create a situation where a war crime may be committed (Spina2020). In such situations where there is an "interaction" between the two bodies of law, the intellectual property claim can potentially be ruled as a violation of international humanitarian law. This process of valid interpretation will help prevent less direct violations of international humanitarian law by addressing their cause before they occur.

The most effective and plausible method of harmonizing international humanitarian law with intellectual property law is through the use of international organizations and the judicial process. The complex legal and moral issues that surround the two bodies of law, as well as the wide variety of involved parties, place too heavy a burden on any one set of legislators. By turning to the judgment of the International Court of Justice (ICJ) and the International Criminal Tribunal (ICT), parties involved in disputes can receive binding decisions based on upholding the law for the benefit of global welfare. Judicial decisions will create a body of case law that develops and clarifies law as it pertains to both forms of intellectual property that can specifically be applied to various situations in armed conflict.

7. Future Perspectives and Recommendations

The future perspectives and recommendations for harmonizing intellectual property law and international humanitarian law are proposed in the WIPO report and are significant steps that the world community can consider. It is essential to use the relevant IP rules in a flexible and pro-development manner. In line with pinpointing the concerns over IP rules, which it believes are already impeding transfers of technology to developing countries, the ICRC has shown its intention to research and analyze in depth the effects and potential effects of IP rules on furthering or hindering the aims of IHL and the activities of the Movement. This approach

of the ICRC should thus contribute to creating a climate more conducive to developing global public goods of a humanitarian nature. This positive movement should encourage the states and other organizations of the IHL movement to take the opportunity to consider how to promote cooperative ventures between themselves and private sector partners in creating global public goods. One strong example in recent years was the revision and expansion of the intellectual property rules in areas such as public health and traditional knowledge, so it is hoped that there will be more positive input towards building public goods for humanity, despite the legal and commercial challenges. This will require a fostering environment. During treaty-making and other standard-setting, the state parties and international organizations should strive to coordinate their legal regimes and policy goals, so that there is no contradiction between various legal norms that might obstruct achieving desired objectives. This will ease the task of internalization and automatic application of rules from one legal system to another. Finally, in promoting and implementing any rules designed to "pull" private actors towards aligning their actions with humanitarian goals, there should be active engagement and cooperation with these actors. Since the majority of such rules will affect intellectual property rights holders or those involved in the development and transfer of technology, detailed studies will be required to know how best to reach and engage these various actors. It is envisaged that some form of "best practices" guidelines will help indicate the ways these actors can contribute to the humanitarian agenda. These studies and guidelines should also be disseminated in various forums to increase awareness and generate further input from interested parties. All these activities should be backed with support from states and other actors involved in treaty implementation, as well as financial and moral support from those benefiting from the humanitarian developments.

7.1 Strengthening harmonization efforts

Strengthening the current efforts pertinent to harmonization is a move that would guarantee positive prospects. In light of the present scenario, there is an urgent need to establish a multilateral framework that would guide in resolving conflicts between the two bodies of law. This can be achieved by having an agreement between the custodians of international humanitarian law and intellectual property law, namely the International Committee of the Red Cross (ICRC) and the World Intellectual Property Organization (WIPO). The first and foremost step would be to establish a working group under the guidance of these two organizations, consisting of experts from both fields of law. The main aim of the group would be to identify areas of conflict and to form a draft agreement containing guidelines on resolving such conflicts and on the implementation of both bodies of law. The agreement would be in the form of a treaty, which after ratification would be binding on the parties to the treaty i.e. the States. Treaty law is considered one of the sources of international law, and the proposed treaty would essentially serve as a precedent that would aid the settlement of similar future conflicts between the two bodies of law. An alternative to the above approach would be to incorporate these guidelines into an additional protocol to the Geneva Conventions or to draft a new convention. These instruments would also be a valuable resource in guiding the issues addressed during the identification, prevention, and resolution of conflicts between the two bodies of law. This approach has been previously suggested by the International Institute of Humanitarian Law.

7.2 Enhancing cooperation between stakeholders

The wide-reaching impact of armed conflict on knowledge and creativity has necessitated the involvement of a broad and diverse range of stakeholders in IHL and IP to achieve the goals of the two regimes. Since the inception of the project, both IHL and IP experts have been involved in the research process. However, stakeholders from governments, international and regional intergovernmental organizations, NGOs, and the ICRC have expressed an interest in becoming involved in the project to contribute to the development of the law and policy in this area. There are several areas where these stakeholder groups would be able to make a valuable contribution, including the identification of specific problems that the law should address, and the possible solutions to these problems. The latter would require further targeted research between legal and policy experts in IP and IHL. The project has already begun to identify feasible solutions for specific problems of conflict in which respect for patents, trademarks, and copyrights is often weakened or violated. In this initial phase, the solutions have been the result of the combined knowledge and creativity of participating legal and policy experts.

7.3 Promoting awareness and education

However, education will not be successful unless the younger generation is made aware of the causes of fire and the educational value of the sound of a fire alarm. The value of the sound of a fire alarm and the need to distinguish it from other similar sounds should be mentioned here, in the context of the recommendation on the evacuation of cultural heritage in times of conflict. Perhaps a universal signal for imminent risk of damage to cultural property would be a valuable means of drawing attention to the risk and to the need for taking precautionary measures. The final measure recommended for improving education is the inclusion of cultural property protection in the training of armed forces and emergency services. This is a significant recommendation that should be stressed and implemented immediately so that in future conflicts there will be more respect for the cultural heritage of all humanity.

References:

Seuba, X. (2020). Jurisdictional overlaps in international intellectual property: challenges arising from the proliferation of preferential trade agreements regulating intellectual property rights. In *Research Handbook on Intellectual Property and Investment Law* (pp. 267-286). Edward Elgar Publishing.

Spina Ali, G. (2020). Intellectual property and human rights: a taxonomy of their interactions. *IIC-International Review of Intellectual Property and Competition Law*, 51(4), 411-445.

Kumar, A. (2021). Custom as a Source under Article 21 of the Rome Statute. *Asian Journal of International Law*.

Walsh, K., Wallace, A., Pavis, M., Olszowy, N., Griffin, J., & Hawkins, N. (2021). Intellectual property rights and access in crisis. *IIC-International Review of Intellectual Property and Competition Law*, 52, 379-416.

Papageorgiadis, N., McDonald, F., Wang, C., & Konara, P. (2020). The characteristics of intellectual property rights regimes: How formal and informal institutions affect outward FDI location. *International Business Review*, 29(1), 101620.

Gisel, L., Rodenhäuser, T., & Dörmann, K. (2020). Twenty years on International humanitarian law and the protection of civilians against the effects of cyber operations during armed conflicts. *International Review of the Red Cross*, 102(913), 287-334.

Li, S., Zhang, H., Jia, Z., Zhong, C., Zhang, C., Shan, Z., & Babar, M. A. (2021). Understanding and addressing quality attributes of microservices architecture: A Systematic literature review. *Information and software technology*, 131, 106449.

De Bruin, S. P., Hoch, J. M., von Uexkull, N., Buhaug, H., Demmers, J., Visser, H., & Wanders, N. (2022). Projecting long-term armed conflict risk: An underappreciated field of inquiry? *Global Environmental Change*, 72, 102423.

Houlihan, J. W. (2024). Conflict in early medieval Ireland, Adomnán of Iona and the law of the Innocents (697 AD): an early Law of war. *Small Wars & Insurgencies*.

Kim, S., Whitford, M., & Arcodia, C. (2021). Development of intangible cultural heritage as a sustainable tourism resource: The intangible cultural heritage practitioners' perspectives. In *Authenticity and Authentication of Heritage* (pp. 34-47). Routledge.

Štrba, S. I. (2021). World Health Organization: Contributions to Access to Health and TRIPS Agreement Discourse. *Intellectual Property Law and Access to Medicines*.

Motari, M., Nikiema, J. B., Kasilo, O. M., Kniazkov, S., Loua, A., Sougou, A., & Tumusiime, P. (2021). The role of intellectual property rights on access to medicines in the WHO African region: 25 years after the TRIPS agreement. *BMC Public Health*, 21, 1-19.

Tenni, B., Moir, H. V., Townsend, B., Kilic, B., Farrell, A. M., Keegel, T., & Gleeson, D. (2022). What is the impact of intellectual property rules on access to medicines? A systematic review. *Globalization and health*, 18(1), 40.

Makurvet, F. D. (2021). Biologics vs. small molecules: Drug costs and patient access. *Medicine in Drug Discovery*.

Mishuk, A. U., Fasina, I., & Qian, J. (2020). Impact of US federal and state generic drug policies on drug use, spending, and patient outcomes: A systematic review. *Research in Social and Administrative Pharmacy*, 16(6), 736-745.

Keyter, A., Salek, S., Gouws, J., Banoo, S., & Walker, S. (2020). Evaluation of the performance of the South Africa regulatory agency: recommendations for improved patients' access to medicines. *Therapeutic innovation & regulatory science*, 54, 878-887.

Swinnen, J., Olper, A., & Vandeveld, S. (2021). From unfair prices to unfair trading practices: Political economy, value chains and 21st century agri-food policy. *Agricultural Economics*.

Yas, N., Elyat, M. N. I., Saeed, M., Shwede, F., & Lootah, S. (2024). The Impact of Intellectual Property Rights and the Work Environment on Information Security in the United Arab Emirates. *Kurdish Studies*, 12(1), 3931-3948.

