



Traditional Knowledge Protection and Digitization: A Critical Decolonial Discourse Analysis

Jacqueline Paul¹

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Abstract

Trade treaties and legal agreements generally left Indigenous peoples and colonized communities out of negotiations that directly impacted them. Using Critical Discourse Analysis, informed by decolonial thinking and Nishnaabeg epistemology, this research study analyzed the language of five public documents, published by the World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO), surrounding the protection of Traditional Knowledge (TK) through the *sui generis* legal figure and its connection to the development of digitization TK. As TK is largely uncommodifiable, the ability to identify and protect TK through Intellectual Property Rights within the WIPO and the WTO is encumbered. The research analyzed and explored how language and knowledge shape policy and ideology against historically marginalized people and communities through discourse enacted by the WIPO and the WTO.

Keywords Traditional knowledge · Intellectual property rights · *sui generis* · Critical discourse analysis · Decoloniality

1 Introduction

When the knowledge of Indigenous and local communities is given commercial value, this dynamic knowledge is forced into the realm of individual and private property; knowledge to be bought and sold. With the formation of the World Trade Organization (WTO) and the rise of the Information Age, the Agreement on the Trade-Related Aspects of Intellectual Property Rights (TRIPS) was incorporated into the world trading system to encourage more protection for knowledge creation which was seen as an essential economic driver. The idea of knowledge-based economies emerged as an international strategy in large part due to the

✉ Jacqueline Paul
byjacquelinepaul@gmail.com

¹ University of Freiburg im Breisgau: Albert-Ludwigs-Universität Freiburg, Freiburg i. Br., Germany

U.S.’ decision in the late 1980s to defend its global economic hegemony within knowledge industries and what came to be called *intellectual property* [1]. Intellectual property refers to creations of the mind and can take on a variety of forms, from artistic expressions to symbols, designs, and inventions. Intellectual property becomes Intellectual Property Rights (IPR) when governments grant creators the right to prevent others from using their creation.

Knowledge held by Indigenous and/or local communities is classified within IPR as Traditional Knowledge (TK). Due to its living nature, TK is not easily protected by the current IP system that is designed to protect inventions and works by individuals or companies, specifically tech or pharmaceutical related works. Innovations based on TK may be protected under patent, trademark, geographical indication protection, or as a trade secret. And while the World Intellectual Property Organization (WIPO) defines TK as, “knowledge, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity,” there is no internationally recognized definition of TK outside of what can fit into commonly recognized IPR [2]. TK examples include: traditional medicinal knowledge; knowledge of medicinal uses of certain genetic resources and the medical treatments that exclude genetic resources; knowledge pertaining to biodiversity or the conservation and sustainable use, and extends to TK relevant to plant genetic resources for food, agriculture, and animal breeding and production [3]: 7]. TK characteristics may be comprised of: specific elements of knowledge which may include a broader systematic body of knowledge or knowledge system; diverse forms of ownership within a community or within a nation-state; and patentable and non-patentable elements [3: 17].

TK is not always Indigenous knowledge and Indigenous knowledge is considered to be a more precise body of knowledge. TK held by Indigenous peoples is referred to as as Indigenous knowledge and pertains in particular knowledge resulting from intellectual activity in a traditional context. Indigenous knowledge and TK also include the know-how, skills and innovations, and practices within a traditional context [3: 4 and 72]. Often, the knowledge held by these communities is an integral part of their cultural heritage, inextricably linked to the socio-political and economic systems, institutions, and the natural environments where these communities live [4]. Ownership of TK is not necessarily by Indigenous or local communities. There is currently no declaration that Indigenous people are owners of their knowledge, nor is there a universal, standard definition of Indigenous and local communities [5]. Indigenous and local communities are often loosely defined “as communities that have a long association with the lands and waters that they have traditionally live on or used” [6].

TK is not believed to be an antiquated system but part of living, dynamic societies and cultures [4]. This cultural heritage “cannot be understood as ‘owned’ or ‘invented’ by a particular person or group, as indigenous peoples often define themselves as custodians of knowledge and resources that have been bestowed upon them through spiritual means” [7]. TK challenges what is meant by intellectual property and “threatens the foundation of private property and the ownership of ideas” that make up the foundation for international law and governance [8].

Intellectual property as ‘property’ provides a legal framework for enforcement. Property is a legal construction where selected private interests are protected and upheld. Through the creation of ‘property rights’, the law draws borders and enforces regimes of power and is historically contingent [9–11]. What constitutes property ownership shifts as power structures change globally and over time. The idea of individual authorship is related to the nature of property during the period of Enlightenment. IPR stem from European ontologies, epistemologies, and legal frameworks. The structure of property is solidified and justifiable through law.

Deficiencies in protecting TK using IPR often pertain to ownership and obtaining exclusive rights to knowledge. IPR functions on exclusivity for a limited time after which the knowledge enters into the public domain. Regardless if shared knowledge is more valuable to society, information as a public good within IPR is more valuable to an individual when held secretly [12]. And what of TK that is held collectively, is dynamic, changes and responds to environmental and social circumstances, and is in continuity with the land and relations? The enforcement of IPR requires the identification, isolation, and protection of information, where TK is holistic in character, encompassing much more [4].

In order for Indigenous and local communities to protect their own knowledge, they must first adhere to Western constructs of order like, *sui generis* systems of protection, databases, and/or Western education systems. Meaning ‘a special kind’ or ‘of its own kind, *sui generis* systems are specialized measures or laws aimed exclusively at addressing the characteristics of specific subject matter. The categorization of TK to fit into a database where it can be referenced and seemingly not used for misappropriation ignores the historical positionality of the communities that hold TK and Indigenous knowledge. Databases keep access restricted and exclude those that do not possess the proper technology to contribute to the database. In order to be protected and legitimized, TK must adhere to the current legal structures which often, oral traditions and traditional music, for example, do not qualify for. Oral traditions are excluded from protection and there is much hesitation towards the idea of communal ownership.

While a *sui generis* system of protection and databases allow nation-states to exercise some order of protection, those systems still require TK to become perceptible under the Western constructs of law and understanding. A *sui generis* system of protection of TK within the scope of global IP needs definitions, objectives, identification of the subject matter, legality of material, registrations, exceptions and limitations, and duration of protection to be clearly defined in order to be legitimized and enforceable. While IPR aims to commodify certain parts of TK, specifically the parts that can be traded and sold, a *sui generis* system of protection may be able to protect TK that exists outside of the Western construct of IP. A *sui generis* system of protection is used in protecting intangible property and granting rights to those who have original claim to knowledge, or proprietary rights. The *sui generis* system of protection of TK may provide exclusive rights in an attempt to provide fairness and equity from neo-liberal market forces to primarily Indigenous peoples [13]. The holistic and unique character of TK under a *sui generis* system allows for specialized measures or laws to be created exclusively to address the special characteristics of specific subject matter.

In addition to the variety of legal constructions for the protection of TK is the development and expansion of national and an international database. However, this presents a variety of issues in many countries of the Global South as they do not have intensive internal technological and scientific capacity to adapt and transform knowledge production to fit within what would be protected under current IPR frameworks [13]. Additional issues arise where TK-holders and the State intersect, as well as between TK-holders and researchers.

Currently, preservation of TK within IPR is largely driven by concerns of the rapid loss of this knowledge and cultural diversity. TK helps build resilient social-ecological systems. Biocultural diversity, with its interconnected links between biological, cultural, and linguistic diversity, can be an asset to climate change adaptation strategies, as this diversity has developed over generations of practical experience [7]. The understanding that the disappearance of TK or understanding not being passed to future generations is another aspect that requires urgent attention. With modernization and the influence of western education, support for TK is weakened, as absorption and assimilation into western culture is prevalent [5]. The need to protect TK is demonstrated in its ability to enable local food and health security, biodiversity conservation, climate change adaptation, and the mitigation, treatment, and cures for diseases. This type of knowledge presents solutions to a plethora of global issues which calls for the preservation and protection of TK on a global scale within global systems.

2 Modern and Traditional

As the world hunts for new inventions, ideas, and materials, support for this behavior is given in international agreements and implemented through modern global regimes. Stemming from the Renaissance, a period that forged knowledge production and developed a new identity, the period of Enlightenment created a matrix of modern social sciences and established the language to define *modernity*: transformation. Modernity has other names: civilizing, new, progress, development, and globalization. Enlightenment/European thinkers grew to believe that there was one path to civilization and social development and that societies could be placed within the spectrum of development. This scale of development provided a criterion of evaluation and set out to erase that which came before it. A schism between ‘modern’, new and better, and ‘traditional’, old and other, occurred.

Traditional appears as a term invented in the process of building the idea of modernity. Modernity naturalizes itself into discourses of superiority by engendering suspicion of that which is ‘traditional’. In the discourse of modernity, Europe or ‘the West’ is the model and the measure of progress, rationality, and development [14]. Even the term *the West* is a construct and idea, not necessarily a geographical location. Europe is difficult to define by rigid borders, as it is an identity and morally constructed shifting zone. As an ideology, Eurocentrism is an epistemic issue and an exported aesthetic [15]. To be western means that a society is “developed, industrialized, urbanized, capitalist, secular, and modern” [14]. This ideology of what is ‘Western’ can be observed presently throughout the globe in countries that

are not geographically in the West, such as Australia. This construction was created to divide and elevate Eurocentric principles against that which was also created: the idea of traditional, older ways of being. The vision of humanity formulated by European Enlightenment was never meant to be applied to Indigenous peoples but exclude them [16].

Modernity would have been quite different if the colonization of the Americas did not solidify the West's wealth and origin story. European expansion inflicted its own languages and ideas onto the world in order to describe and represent it. Through the (re)telling of the West's origins, European ontology poses as natural and organic. This ideation that Europe was leading the criterion of civilization through the dissemination of the idea of itself, permitted Europe to gain cultural and ideological domination. The exclusion of everything non-European or non-modern gave way to a forgetting or exclusion of previous practical and theoretical considerations [17]. This new world-system annexed the 'New World' from the 'Old World', creating evolved colonial systems exercised on the Indigenous peoples of the Americas whose stories were then told through a Western lens and European knowledge system [14]. This storytelling positioned European knowledge production sites as superior through positioning its opposite, the 'New World', as a diminutive space for ideas.

Born out of Latin America and the limits of dependence theory in the 1970s and the decolonization of the globe, Anibal Quijano revealed decolonial thought and the concept of modernity/coloniality: that there would be no modern world without the colonization of the Americas [18]. The theoretical concept of the 'coloniality of power' or the 'Colonial Matrix of Power' (CMP) helps make the invisible power forces that govern and control our current reality visible. The CMP reveals a complex system of managing, controlling, and building done by Western actors, who position themselves as the ultimate rule of knowledge and thus generated continued subjectivities that reinforce their dominance [19]. This type of authority is a complex structure of management and control composed of domains, levels, and flows. These domains include: knowledge and language, sexuality and gender, authority/state/political, and economy, all of which are overseen by larger domains: theology, patriarchy, and racism. The domains of the CMP are connected and infiltrate and permeate actively throughout many societies.

While the actors who created the CMP were likely not consciously exercising or understanding the power structure they were building, they were conscious the structures they aided in creating deemed other humans as lesser. For Walter D. Mignolo, the coloniality of power is "a conception of humanity according to which the global population was differentiated into inferior and superior, irrational and rational, primitive and civilized, traditional and modern" [18]. This imperial and colonial difference discourse is both the product of power structures and the producer of the structures. Modernity suggests that Western institutions and ideology encroached over non-Western cultures and civilizations where those communities' praxis of living, knowing, and doing were not related to Western culture [20]. Modernity is a question of knowing and knowledge (re)production.

Traditional knowledge systems are often concerned with the embodiment of knowledge. Knowledge is generated through a joining of emotional and intellectual

knowledge within the kinetics of space/place-based practices; lived in a way where reality is continually reborn through time and space [21]. Intelligence is a web of consensual relationships infused with movement that allows for lived experience and embodiment [21]. The connection between land and knowledge is inseparable. Land invokes relationship, responsibility, rights, sovereignty, and a belonging [22]. The land is a space and place where meaning-making and relationship is made between all inhabitants. The land situates Indigenous knowledges; knowledge is the code and the land is the master key [5, 22].

This understanding of intelligence as interconnected and inseparable is difficult to understand within Western knowledge systems. Modernity/coloniality's expansion through land, language, and knowledge (re)production, displaces and commodifies living knowledge and sources of life that have existed for centuries. Modernity uses human bodies and energy from the land all under the guise of progress, development, and globalization. The authoritative figure that enforces knowledge and trade tributaries globally, the WTO, builds its own history, legitimacy, formalities, and regulations to control traditional knowledge within the ideology of Western knowledge systems.

3 A World System of Trade and Intellectual Property

Dating back to A.D. 1250, from China to the Islamic empire, to Spain, and to North Africa, the current world trading system developed out of mercantile trade systems [23]. The thirteenth century had dynamic, market-oriented economies, where networks intersected other networks. These networks were separate from the development of Europe [24]. Europe did not create the world trading economy, but merely joined it. Notably, the period of European Enlightenment (1715–1789) forever shifted and cloaked the narrative behind history, trade, and other ways of being.

European thought positions itself as the center and basis of comparison. A global trade system developed with the extraction of raw materials from colonies worldwide that produced great wealth for European nations. This world-system of boundaries, structures, member groups, laws, and perceived understanding laid the foundation for capitalism and Western control. The modern state was built through colonial conquest, the trans-Atlantic slave trade, the enclosure of common lands and the politicking of expressions of being (literary, scientific, and political). This system of modernity set out to control that which came before it. Within this modern ideology, the vision of humanity formulated by European Enlightenment was never meant to be applied to Indigenous peoples but exclude them [16]. As Western theories and developments permeated throughout the world, law, economics, and political power led to legitimizing control of the world-system of trade.

Modernity's desire for control led to the development of international law that included: diplomacy, treaties, conferences, and international organizations. With the establishment of the nation-state, the Treaty of Westphalia in 1648 held the legal obligation of one nation-state to another while setting a baseline for nation-states to reconnect after times of war. This reconnection of nation-states after conflict notably occurred twice thereafter, with the Treaty of Versailles after World War I, and the

establishment of the General Agreement on Tariffs and Trade (GATT) after World War II [11]. An extension of this could be interpreted with the development of the WTO after the end of the Cold War.

Modern economics overwhelmed previous mercantile trade networks and created a system that maximizes exports, minimizes imports, and builds up trade surpluses in order to accumulate wealth [11]. Economic loss is constantly absorbed by political entities, while financial gain is disseminated to private entities. This requires that groups pursue their own economic interests while attempting to distort the market for their benefit while exerting influence on either their own nation-state and/or others. Sellers profit from their strengths in a market and this enables them to seek the intrusion of political entities to distort the market in their favor [25].

Capitalism rewards the accumulation of capital at a higher rate than 'raw' labor which leads to a geographical distribution of occupational skills being unequally split between the West and the rest of the globe. Current vernacular refers to these regions as the Global North (the West) and the Global South, respectively. The market reinforces this distribution of skills. The absence of a central political mechanism within the world-economy presents an obstruction to countering the poor distribution of capital rewards [26]. Underdeveloped countries are a result of being part of a world-economy that values skills produced in the Global North over the production of raw materials.

For Walt Whitman Rostow, his 'Stages of Economic Growth' explains the varying levels of development that every society must pass through in order to 'take-off' and become a modern society [27]. While Rostow explains how underdeveloped and undeveloped nations can achieve modernity, his stages of development leave out a critical component: previously colonized nation-states are left with less resources to 'utilize' [27]. The ignorance and erasure of underdeveloped countries' history assumes that their present stage resembles earlier stages of developed countries. This positionality of development and underdevelopment fails to take into account the economic colonies and exploitative nature of colonization while largely ignoring the development of the capitalist system that largely benefits its creator, the West [28].

The third development to influence and maintain the world trade system is within the realm of political power. Political power differs significantly from judicial or economic views. The law emphasizes concepts of juridical equality and justice, while economics favor cooperation and positive gains. Power, with its desire for one to compel another to do something they might not necessarily do on their own free will, permeates all political relations regardless of attempts to manage power relations. The collaboration between international law and economics is exercised to maintain and control trade for power holders.

Hierarchies of culture are important to global power relationships and have aided in the development of global intellectual property standards. These hierarchies became a justification for political domination [13]. These organizational options are political, where decisions are made on which outcomes will most likely benefit or support those in power's interests [26]. This is demonstrated with British hegemony in the first part of the twentieth century and is continued by the United States (U.S.) in their solidification of the judicial and economic order of trade. And

as the U.S. hegemony has declined since the 1970's, there is an increase in the freedom of capitalist enterprises in the form of multinational corporations, which now mobilize against nation-states whenever national politics become too responsive to the needs and pressure for rights by local workers [29]. Power remains indispensable to the establishment of the international trade order. This inequality in market power implemented through law and cooperative economic ideas, permits, and motivates Global North countries to negotiate treaties for closer economic relationships between themselves.

3.1 From the General Agreement on Tariffs and Trade (GATT) to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs)

Leading up to the end of World War II, the U.S. began reconstruction of a new global world order through world trade and a global banking system. The U.S. entered into 32 bi-lateral agreements between 1934 and 1945, many that included clauses that foreshadowed the GATT [30]. In 1944, in Bretton Woods, U.S., the formation of the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (World Bank) occurred. These principal organizations make up the economic global relations and the Bretton Woods System. Discussions surrounding a global trade organization, termed the *International Trade Organization (ITO)*, was also discussed at Bretton Woods.

In 1946, the U.S. published a draft of a suggested ITO charter and presented this in London, United Kingdom. The ITO was never formed due to decisions made by the U.S. Congress, which believed that the formation of an international trade organization would constrain domestic sovereignty. The history of the GATT was intertwined with the failure to develop the ITO. The GATT was applied as a treaty obligation under international law through the adoption of the Protocol of Provisional Application (PPA). This protocol held signatories to agree to apply the treaty by 1948 while also allowing other governments to not have to pass the GATT through their legislators for approval. It was governed by a small executive council and trade decisions were primarily made utilizing a system of weighted votes that placed most of the control under the U.S. and other dominant industrialized economies who held similar views of the world-economy and were allied politically with the U.S. [31]. The GATT hosted eight rounds of multilateral trade negotiations from 1947 to its transformation into the WTO in 1995.

After the Tokyo Round of trade and tariff negotiations in 1979, major decisions were made by 'the quad'—Canada, the European Community (EC), Japan, and the U.S.—to initiate discussions about disciplinary functions and a place for institutional structures regarding intellectual property rules and regulations. There was concern from both Global North and Global South countries surrounding a revised system of global trade and new regulations on intellectual property. Some developing countries were concerned about the policies that would protect intellectual property at the expense of their needs [30]. This trade-off of interests of highly industrialized countries (developed) and those of industrializing (developing) economies was established in the WTO Agreement. The highly industrialized countries

obtained greater protection of their IPR and access to markets of the industrializing economies for agriculture and textiles and service industries while the industrializing economies gained access to the markets of those in the Global North.

In September of 1986 in Punta del Este, Uruguay, a ministerial meeting was held to launch a new trade meeting. Negotiations took place over the next few years and in early 1990, Canada put forth the first official support for a new institution: the ‘World Trade Organization’. In 1993 a draft charter for a world trade organization was established. This draft was signed at the ministerial meeting in Marrakesh, Morocco on April 15, 1995.

With the signing of the WTO Charter and its establishment, the GATT system now includes trade in services, IPR, and other previously excluded areas. While the GATT no longer exists as an institution, the obligations of the GATT remain a central part of the rule structure for the world trading system [30]. The WTO was structurally designed to facilitate the international economic cooperation in trade liberalization. Additionally, the Agreement establishing “the WTO expands and entrenches the GATT principle that trade should be governed by multilateral rules rather than by unilateral actions or bilateral negotiations” [31]. The WTO proved to be the only regime born out of the Bretton Woods Conference that was able to transform—from GATT to WTO—demonstrating its ability to change.

Within Annex 1 of the WTO Charter is TRIPS. TRIPS is a legal agreement between all WTO members and intends to reduce impediments to international trade by promoting effective and adequate protection of IPR. Its objective is: to protect and enforce IPR as a means of promoting technological innovation; transfer and dissemination of technology; is mutually advantageous for producers and users of technological knowledge; be conducive to social and economic welfare; and balance rights and obligations. Members must recognize a multilateral framework of international trade, that IPR are private rights, and that national systems have their own public policy objectives for protection of IPR. Intellectual property law is the main way in which knowledge is regulated worldwide. TRIPS provides the framework for a globally enforceable forum on IPR. Those who violate IPR can be subject to the WTO’s dispute settlement system (DSS). The DSS allows any Member to pursue wrongdoings through an avenue of international enforcement. The DSS aims to provide security and predictability in trade through the rule of law.

The TRIPS agreement covers seven main areas of IPR: copyright, geographical indication, industrial designs, layout designs of integrated circuits, patents, trademarks, and undisclosed information including trade secrets. The Agreement stems from multiple treaties—the Paris Convention, the Bern Convention, and the Rome Convention—having articles pertaining to each of these main areas. The Paris Convention with its final treaty amendment in 1979, has three main provisions: national treatment, which grants nationals of other nation-states the same treatment; right of priority, relating to filing dates for patents, marks and industrial designs; and common rules that all states must adhere to relating to patents, marks, industrial designs, trade names, geographical indications, and the repression of unfair competition [2]. The Berne Convention focuses on the protection of works and the rights of authors and grants three principles and a series of provisions to grant protection of these works [32]. The Rome Convention deals with the protection in performances for

performers, phonograms for producers, and in broadcasts for broadcasting organizations [2]. It is understood that Members should comply with the articles of these conventions.

Intellectual property encompasses separate and distinct concepts. A vast majority of IPRs are not held by the authors or inventors of that knowledge but by multinational corporations based in the Global North. The Global North remains to be the primary exporters of commodified knowledge while the Global South is positioned to be importers of the controlled knowledge. With the opening of markets throughout the world with pressure from the Global North, formed institutions like the WTO have provided accumulation by dispossession to those countries that do not adhere to opening their economies to those capital rich nations. For those countries that only recently emerged from under the direct control of colonialism, they do not benefit from globalization and neoliberal economic policies imposed by the IP regimes [8, 33]. Demonstrated in U.S. negotiated trade agreements, the U.S. will allow developing nations access to its market by implementing domestic intellectual property reforms. Since the introduction of TRIPS, the U.S. has entered into over 40 bilateral treaties to ensure that there is better protection abroad and to control the flow of knowledge [33]. TRIPS instituted a globally enforceable forum for IPR, which is a system that imposes a developed-country standard and is not necessarily appropriate or fair for developing economies.

4 Methods and Materials

4.1 Research Methods

The language of IPR does not easily fit within the systems of TK and attempting to transform TK into a system that only values commodified creativity and knowledge is just as difficult [33]. The discourse of five public documents by the WIPO and the WTO, the governing bodies of TK, were critically analyzed for their language surrounding the protection of TK through the *sui generis* legal figure and its relation to the development of digitizing TK cultural practices and contents. The five documents chosen, based on their relevance to the scope of study, were: “Agreement on Trade-Related Aspects of Intellectual Property Rights”; “The Relationship between the TRIPS Agreement and the Convention on Biological Diversity—Summary of Issues Raised and Points Made”; “Review of the Provisions of Article 27.3(b)—Summary of Issues Raised and Points Made Document”; “The Protection of Traditional Knowledge and Folklore—Summary of Issues Raised and Points Made—Note by the Secretariat”; and “Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore”.

The five documents were initially read for understanding of the area of concern and study. This established a basic understanding of the field of research. The data/documents were evaluated in conjunction with the literature review. This established a basic understanding of the field of research.

After an understanding of the legal figure *sui generis*, IPR, protection of TK, digitization of TK, and other important and influential terms, that data set was filtered

through keywords. Keywords were applied to filter the data to include only information necessary to answer the research questions: How is *sui generis* construed as to mean TK protection? How is *sui generis* connected to the development of digitizing cultural practices and contents? If an agreement or issue possessed one of the keywords below, it was included in the data set. Keywords included: bargaining power; control; consent; cultural heritage; data; database; genetic resources; Indigenous peoples; innovation; intellectual property protection; intellectual property rights; knowledge; misappropriation; oral traditions; owners of traditional knowledge; protection; rights conferred; *sui generis*; technology; traditional knowledge. A total of 140 agreements and issues raised were identified through keyword coding. The documents were reviewed again before an a priori application was done and the agreements and issues raised were reduced to 118 total [34]. A priori themes allow for important theoretical concepts and perspectives to inform the design and aims of the study.

With the remaining agreements and issues raised, a CDA was applied to the text. During the initial stage of description (text) analysis of CDA, a priori was applied once more and the agreements and issues were reduced to 101 agreements and issues raised. Final omissions were not related to the research questions or where redundant text was re-stated in other agreements or issues.

Title	Purpose	Utilization	CDA
The Agreement of the Trade-Related Aspects of Intellectual Property Rights [35]	Outlines the provisions, basic principles, standards, enforcement, acquisition and maintenance, dispute prevention and settlement, and arrangements of IPR	This Agreement is utilized by Members of the WTO and is publicly available online	Ten Agreements were used
The Relationship between the TRIPS Agreement and the Convention on Biological Diversity [36]	Has three major sections: general views on the relationship between the TRIPS Agreement and the Convention on Biological Diversity (CBD); patentability of genetic resources and the CBD; and the TRIPS Agreement and prior informed consent/benefit sharing	This Agreement is utilized by Members of the WTO and is publicly available online	18 issues raised were used

Title	Purpose	Utilization	CDA
The Review of the Provisions of Article 27.3(b) [37]	Reviews the provisions of Article 27.3(b) to the TRIPS Council since 1999. It is divided into three major sections: first section concerns patent provisions of Article 27.3(b); the second section summarizes issues relating to the <i>sui generis</i> protection of plant varieties; and the third concerns issues relating to the transfer of technology	This document responds to the request of the Council for TRIPS, that the summary notes on issues raised and points made be periodically updated	15 issues raised were used
The Protection of Traditional Knowledge and Folklore [38]	Responds to the request of the Council for TRIPS, that the summary notes on issues raised and points made be periodically updated. It is divided into three major sections: first, it concerns issues related to the protection of TK; second, it concerns the granting of patents in respect to TK; and the third, it concerns consent and benefit sharing. This document expresses the views on two issues: why is there a need for international action on the protection of TK and the most appropriate international forum/forums to pursue such a work		23 issues raised were used

Title	Purpose	Utilization	CDA
The Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore [3]	A document update to the 2008 gap analyses on the existing protection regimes related to TK. It has five sections detailing this work and gaps within the protection of TK The document used in this study for analysis was the most updated draft gap analysis presented by the IGC and WIPO at the time of writing	A draft of the gap analysis on the protection of TK was prepared by the Secretariat and circulated among the IGC participants for comment	35 Sections were used

4.2 CDA Methodology

Developed by Norman Fairclough, CDA links theoretical and practical concerns and contributes to the development and elaboration of theoretical constructions [39, 40]. CDA consists of three inter-related dimensions of discourse that are tied to three inter-related processes of analysis. The dimensions of discourse are: the object of analysis; the processes by means of which the text is produced and received by human subjects; and the socio-historical conditions that influence and control these processes. Corresponding to these dimensions of discourse are stages of CDA: description of the text; interpretation of the relationship between text and interaction; and explanation of the relationship, respectively. The use of the word *documents* relates to the data set and CDA's *text*.

Within the first stage of CDA, the object of the analysis corresponds to the description of the text. Text has experiential, relational, expressive and connective value, but may function in any combination. The documents by the WIPO and the WTO were first analyzed through three types of formal feature values: experiential, relational, and expressive. Experiential values are cues in how the text producer's experience is represented and has to do with the contents, knowledge, and beliefs. Relational values are formal features and show how the social relationships are enacted in the text. Expressive values are formal features of the organizations evaluation of the reality it relates to. Three important questions are asked of the text: what is the context of production?; how is the text consumed?; and how is the text distributed?

The next stage of CDA, interpretation, looks at the relationship between text and interaction, and the processes by means of which the text is produced and received by human subjects. To make meaning within the research, one looks at the texts themselves and how they figure into particular areas of social life in order to draw an interpretation [41]. Interpretations are generated through a combination of what is in the text and what is "in" the interpreter, in the sense of what Fairclough calls "the members' resources (MR)" which the later brings to interpretation [39]. In

generating interpretations, MR may also be referred to as interpretative procedures or background knowledge. Researchers arrive at interpretations of situational context partly on the basis of external cues, MR or otherwise. How this is interpreted is determined by what theories, thinking, and background one draws from.

The objective of the final stage of CDA, explanation, is to frame discourse within the socio-historical conditions that influence and control text processes. Aspects of MR are drawn upon as interpretative procedures in the production and interpretation of texts. This stimulates reproduction. Reproduction connects the stages of interpretation and explanation, where interpretation is concerned with how MR is drawn upon in processing discourse, while explanation is concerned with the social constitution or social structure. An explanation of a text re-describes properties through a particular theoretical framework which locates the text in social practice [40]. It is an interpretation of the text in terms of the theoretical framework which makes invisible categories visible.

CDA is transdisciplinary, as the analysis is not just the selection and application of the method but a theory-driven process which allows for various points of entry for research. Part of CDA is an analysis of understanding. CDA takes on the view that any text can be understood in different ways, where different understandings of the text result from different combinations of the properties of the text and the properties of the interpreter/researcher. Important to mention is that textual analysis is inevitably selective as certain questions are asked about social events and cannot be all encompassing [6].

4.3 Theoretical Framework

This critical analysis of the international framework of the trade of knowledge utilized three distinct theories and thinking: CDA, as a theory and a method; decolonial thinking/decoloniality, as outlined by Walter D. Mignolo; and grounded normativity through a Nishnaabeg expression of Indigenous epistemology by Leanne Betasamosake Simpson. This research project is critical of the ideologies and structures surrounding the protection of TK through the *sui generis* legal figure and its connection to the development of digitizing TK content. The interpretation and findings of this research project drew from the interpretative procedures guided by this particular theoretical framework.

CDA looks at the historical, economic, political, and cultural/social setting in which language and practices are contextualized. Discourse analysis for Fairclough is based on the assumption that language is an irreducible part of social life and it aims to produce explanations of social life, and aims to produce knowledge that could contribute to correcting injustice [41]. The theoretical practice of CDA develops an orientation to analysis and the structural conditions of possibility and structural effects. Discourse embodies ideologies that legitimize existing societal relations by almost colonizing the many institutional orders of discourse [39]. One way this is exercised is through *formality*. Formality keeps access restricted by making demands on participants while also unevenly distributing the ability to meet the demands of formality and is common in practice throughout the world with power

lying in high social prestige [39]. Formality is a property of social situations which effects how language forms. This power to decide what is considered part of formality or whether certain word interpretations or communicative norms are legitimate, is an important aspect of social and ideological power. As a theory and a method, CDA brings a variety of theories into dialogue so that as a theory, the shifting synthesis of other theories allows for analysis of theoretical constructions of discourse utilizing a variety of disciplines [40].

Decolonial thinking is the place of liberation from the thinking and the forms of living within modernity's projects (law, economics, knowledge, and power frameworks). Decoloniality is not a theory but an experience of thinking that is planetary, a process, and a project. It is not limited to individuals; it is a strategy in the fight for equality and recognition of colonized and marginalized people. It exists outside of time constructions. Decoloniality stands as a place of liberation for knowledge creation, acknowledging erasure done by the narratives of modernity. Decoloniality aims to create life outside of the dependence of the actors and institutions that produce and maintain the rhetoric of modernity. The idea is to totally delink from it through the imagining of a world that is not dependent on hierarchical, racial, and knowledge divisions; completely rejecting all structures of power. Grounded on cosmologies that recognize complementary dualities (and/and) instead of on contradictory dualities (either/or), decoloniality delinks epistemically and politically from the web of imperial knowledge systems [19].

Leanne Betasamosake Simpson's grounded normativity or *Nishnaabeg intelligence*, is a process of returning, reengaging, reemergence, and unfolding found within the experience of Nishnaabewin [21]. This Nishnaabeg intelligence is a strategic intervention "into how the colonial world and the academy position, construct, contain, and shrink Indigenous knowledge systems" [21]. Nishnaabeg intelligence does not conform to or (re)produce academic conventions or theories. Nishnaabeg intelligence is a generated structure born and maintained by deep meaningful engagement with processes that are physical, emotional, intellectual, and spiritual; space-place-based practices. It is for everyone. Grounded normativity is not just pedagogy, it is how to live. Nishnaabeg intelligence provides a space for wide intellectual engagement with place-based practices and knowledges at the center point. This allows for continually knowing and expressing of who Indigenous peoples are within grounded normativity [21]. Nishnaabeg intelligence provides answers to how we rebuild and imagine a decolonized future through consensual relationships with all earth inhabitants that are infused with movement and informs this research project on an Indigenous knowledge system.

5 Findings

Represented in the five documents is discourse that adheres to the ideological significance of international law, the value of trade over other protective measures, the formal understanding of the liberties within TRIPS, the importance of documenting and digitizing knowledge, and the belief that traditional communities are unable to understand the complex protection system of IPR. Inherent in

understanding this analysis of data is acknowledging the historical positionality of Indigenous peoples and colonized communities. Currently, legal systems and their intersection with TK conflict within the text. The overall belief within the documents is that while IPR may be usable in certain cases to protect TK, it is not sufficient. Since there is no internationally accepted definition of TK, there cannot be protective measures afforded to it within the current IPR system of protection [3: 3].

The discourse reveals the gaps in the protection of TK and shapes the ideology of what is considered TK. TK is referred to particular “knowledge resulting from intellectual activity in a traditional context, and includes know-how, practice, skills and innovations [3: 4]. This very general description leaves insufficient clarity for a workable definition of TK. Tradition is often framed as a representation of the past, something old, and often in juxtaposition to the idea of modern. TK may be generated, preserved, and transmitted through an intergenerational context, distinctly associated with traditional or Indigenous communities, while being integral to the cultural identity of an Indigenous or traditional community which is recognized for being the custodian for that knowledge. The idea that TK forms a part of a community’s self-identity and that knowledge forms part of a community’s social development is described [3: 6].

What constitutes TK protection under patent law is limited to the rigid restrictions designed through Western law and understanding: formality. Patents are defined within the text as any new invention, in any field of technology, and include an inventive step and have industrial application [35]. Excluded from patentability are plants, animals, and biological processes for production. However, if a plant variety is altered by human means through microbiological processes, a patent or an effective *sui generis* system of protection must be applied. The altered plant variety must adhere to patent rules or a detailed *sui generis* regime in order to gain IPR protection. This reveals that if there is human interaction, ownership of an otherwise independent plant, animal, or biological process becomes possible. This restricts patent protection under IPR to that which is ‘new’. Patent protection is available for micro-organisms or non-biological and microbiological processes, favoring human alteration and ownership.

To be eligible for protection TK: must be generated, preserved, and transmitted in a traditional or intergenerational context; must be transmitted between generations within an Indigenous community or traditional community; may need to be integral to the cultural identity of an Indigenous or traditional community; and there be an objective link with the community of origin and have a subjective association within that community [3: 5, 74, 75, and 83]. “The IGC on Intellectual Property, GR, TK, and Folklore” text explains that legal protection can overlook Indigenous innovation and the innovative quality of TK systems due the nature of those systems [3: 10]. TK remains to be viewed as a holistic and unique subject-matter and is considered to be a discovery of nature rather than an invention [3: 24 and 27]. The discourse presents a variety of ways TK could be protected: physically, through legal measures of IPR, and encouraged use of TK to increase understanding of its importance. These suggestions are outside of common protection measures for IPR, demonstrating that TK within the discourse still remains outside of IPR.

With representation at the global level occurring through the nation-state, Indigenous and local communities rely on their governments to act on their behalf. TK holders are predominately in the Global South, which suffers from financial disparity, leaving limited options for the protection of traditional knowledge, by participation in trade negotiations and otherwise. Additionally, if TK was a possibility for patentability, the process is expensive and often patent officers do not understand the language that TK is spoken or written in. This inequality continues with the “TRIPS Agreement” stating that it does not restrict Members from creating their own *sui generis* regimes or other international instruments, such as databases, yet these suggestions neglect the immense amount of financial support required for these developments [35].

5.1 Sui Generis as TK Protection

A *sui generis* system of protection is the only legal construct that grants proprietary rights for TK holders and can ensure that the market will in response to that system of protection, operate fairly and equitably. A *sui generis* system of protection sets out to protect TK, to promote equitable distribution of benefits, to ensure that the use of the knowledge takes place with prior informed consent of the Indigenous peoples or local communities, and prevent misappropriation. There is mention that any *sui generis* system of protection for plant varieties would also extend to TK but would only occur once a definition of TK was established. The formality within the documents sets in place the classifications of what a *sui generis* system is: classifications that generally apply to IPR. Staple or medicinal plants and the protection of TK relating to their use do not qualify for protection [37: 67].

The lack of a definition recognized by the WTO prevents TK from qualifying for protection under both IPRs and for the development of an international *sui generis* system of protection. The emphasis on TK protection being effective under a *sui generis* system of protection means that it should possess the same basic characteristics as those that generally applied to the protection granting through property rights. The structuring of a *sui generis* system of protection, at this time, will remain within the individual Member states and is dependent on their discretion as the TRIPS Agreement does not specify criteria by which to decide whether a specific *sui generis* system of protection is effective.

“The Protection of TK and Folklore” document states that “communities lack adequate education, awareness and resources to take advantage of IPRs” and these communities “do not use scientific methods but trial and error over time” [38:32]. All of these justifications are positioned to withhold protection from and keep restricted what is considered worthy of protection from appropriation. The discourse removes authority from the “TRIPS Agreement” to determine what qualifies as protection and shifts responsibility to each Member state to determine and adopt appropriate protection regimes through effective *sui generis* systems. For an organization that will only offer protection for things that are clearly defined, the “TRIPS Agreement” seeks to avoid upholding the authority it possesses for TK.

A *sui generis* system of protection is an option for Members if they choose to pursue that avenue for protection. What constitutes a *sui generis* regime is closely linked to the guidelines of patent law within the U.S. A *sui generis* system of protection is the only one that grants proprietary rights generating fairness and equity through applying ownership. This is in response to the appropriation of TK and the unauthorized use of TK. Additionally, a major concern is that those who have originated and have legitimate control over the TK are not sharing in the benefits, financial, that accrue from such use [38: 28]. TK is not sufficiently protected through IPR because it falls outside individual ownership.

The discourse within the five documents is adamant on upholding the view that a *sui generis* system of protection must still possess similar characteristics to the IPRs and that there are current specific criteria to judge the effectiveness of a *sui generis* system [37: 51]. The source to raise this point is made in the document “Review of the Provisions of Article 27.3(b) Further views of the United States” [37]. Part of the focus of that document is to detail what constitutes property or what could be included within a *sui generis* system of protection according to the view of the U.S. Within that source, the U.S. states, “Any law establishing rights in property, whether of real, tangible or intangible property, including the various forms of intellectual property, must have certain characteristics if it is to be effective” [37]. This demonstrates the reinforcement of European epistemology through the legal construct of property. Property is not just a material; it is also constructed through social relationships [22]. Given its powerful position within the WTO and within the drafting of TRIPS, the U.S. upholds the international law that established the rules within the patent process.

5.2 Digitizing Cultural Practices and Contents

For TK to be protected, it would have to be disclosed and held within mechanisms that are deemed appropriate by legal standards, like databases. The suggestion of the use of databases in order to control and disseminate boundaries, is highly Westernized within modernity’s desire to categorize and place specific control and order within the world. There is the suggestion that databases be utilized to make it more accessible for those seeking patents to discover possible innovations and practices related to their inventions [3]. Databases keep access restricted and excludes those that do not possess the proper technology to contribute to the database. This formality is also relational in value as it highlights the position of those with access to technology and those without.

Concern with misappropriation by developed nations due to their access to technology is present through the discourse. Issue 63 in “The Relationship between the TRIPS Agreement and the Convention on Biological Diversity” states, “the majority of owners of genetic resources are not aware of the benefits to be obtained from their resources” and continues that because of this, “developed countries might take advantage of their strong position on technology and force developing countries to accept unfair contracts” [36: 63]. This expressive statement that owners of genetic resources, their TK, are not aware of benefits, reveals that within this context,

benefits refer to commercial or capital, disregarding the purpose and benefit that actual GR may bring to the globe. The admission to the appropriation exercised by developed nations due to their technological advances, advances that are pushing for items like databases, demonstrates within the text the known reality of the power positions that exist within the trade system and globally.

The term *force and unfair contracts* provides insight into the producer of this text knowingly understanding that this action occurs and has the possibility to occur. Disclosing the source of origin would enable searches by patent officers, usually presiding within the Global North, to be more exacting should the information be held within the database. The gap in this suggestion is that creating a global database would require significant support in order to establish an effective certification and system. Additionally, patents are often wrongfully given due to the patent office's lack of knowledge about TK, lack of documentation of TK, and the languages TK is orally transferred in or written in. When a patent is wrongfully granted, the nation-state where the TK, in this instance, originates is responsible for pursuing remedies to correct the error such as, "postgrant opposition" or "re-examination proceedings" [38: 22]. Misappropriators or users of TK are not required nor are they under any obligation to provide information of the source of that knowledge; neither are they under any obligation to respectfully treat that knowledge. Once that knowledge is within the global sphere, it can be manipulated in any way to benefit the user. This is correlated with the discourse that elaborated on the issues with the lack of awareness and understanding of TK by the general public and the officials that represent the public. The discourse reveals that it is not inclusive but rather continues the rhetoric that Indigenous and local communities exist in another realm outside of trade and need to be brought into the fold and taught how to operate within the constructions of the trade regime. The argument for the implementation of a database is made in hopes to prevent these issues.

The transcription of TK for use within a database would have to be published in the national language of that nation-state in order to enable governments to become acquainted with the TK. This may eliminate key components of that knowledge due to the translation or interpretation from the original language. However, it is also argued that even TK that exists in oral form or only in local languages would be included in the database [3]. Current protection does not recognize information available through the use of oral traditions within the global sphere. This belief diminishes an important part of a community since it reinforces the ideology that written methods are better. The development of writing and print literacy is a part of modernity/coloniality's exercise to exclude.

5.3 The Other

Through the discourse analysis, it is apparent that Indigenous communities or holders of TK author little of the text. Within issue 63 of "The Relationship between the TRIPS Agreement and the Convention on Biological Diversity" positions Indigenous and local communities outside of the conversation of bargaining power [36: 63]. Throughout the discourse, references to the general 'them' are made. This 'them' extends to the power

dynamic that is exercised between “developed countries (who) might take advantage” and “force developing countries to accept unfair contracts” [36: 63]. The persistent naming of Indigenous or local communities as ‘them’ exposes that there is still an absence of Indigenous and local communities partaking in the treaties that impact them.

Persistent throughout the five documents, are many allusions of Indigenous and local communities and their need to be educated on how to protect their interests through negotiating and using IP systems [38: 30]. This aspect reinforces the perceived idea and perhaps relationship between Members and Indigenous and local communities; Indigenous and local communities are not writing the discourse of the WIPO or the WTO. The insistent that these communities lack the legal knowledge necessary to avoid coercion into unfair contracts is reminiscent of the many treaties Europeans formed with Indigenous groups in the Americas, which were subsequently broken or never honored. On multiple occasions, the five documents mentioned that Indigenous and local communities lack the education or training to understand the benefits their knowledge can have within the world of trade. Additionally, the discourse states that these communities do not understand the value their knowledge could have towards trade, while dismissing the value that that particular knowledge holds for the communities. To reduce the knowledge held by communities for centuries to market value is demonstrative of the WIPO and the WTO’s desire to uphold current, recent past, and future power roles.

Fairclough’s formality is also seen within issue 63 in “The Relationship between the TRIPS Agreement and the Convention on Biological Diversity” document, which describes Indigenous and local communities as lacking legal training which would impede these groups’ ability to bargain or negotiate terms for protection and rights [36: 63]. The idea that traditional communities have difficulty or lack the capacity to understand such a complex protection system and are poorly equipped to protect their own interest is mentioned in issue 46 of the Provisions of Article 27.3(b) [37: 46]. Issue 64 in “The Relationship between the TRIPS Agreement and the Convention on Biological Diversity” describes how helpful people outside of a traditional or Indigenous communities would be to those communities by educating ‘them’ on how to market their knowledge, and how to share in the benefits from the utilization of the knowledge, innovations, and practices that outsiders could then extract from these communities [36: 64]. As described by issue 64, outsiders from these knowledge communities could teach Indigenous and local communities how to understand the nuances of negotiations, contracts, and practices that the outsiders would then use against them in exchange for the utilization of their knowledge, innovations, and practices [36]. The belief that owners of genetic resources are not aware of the benefits their knowledge holds is diminutive and places importance on commercial or capital benefits; not on life sustaining practices.

6 Conclusion

A critical analysis of discourse put forth by the WIPO and the WTO regarding the protection of traditional knowledge reveals the entrenchment of neoliberal policies stemming from modernity’s construction of law, economics, and political power.

The five documents researched reinforce the CMP through the implementation of management and control of the trade economy, language, and knowledge (re)production. Decoloniality recognizes that the CMP tries to separate each of these domains: law, economics, politics, knowledge, and language, with experts in each; but they are all connected and uphold each other. The creation of economics, law, and politics are ideas that are constantly being (re)produced through and by language and knowledge. Capitalism is a type of knowledge that is justified, and allows for the subjugation of economies that are not capitalist [19]. This extends to the knowledge systems used by Indigenous or local communities. These Indigenous and local systems of knowledge only exist to the colonial authority, in this instance, the WIPO and the WTO, to legitimize and reinforce their control over Indigenous and local peoples.

The WTO was designed to facilitate international economic cooperation in trade liberalization. The five documents outline what is possible for protection through IPR and what is valued within the newest system of trade control. IPR exists as a tool for modernity, or modernity's current name: globalization. Globalization is not constructed as an unchangeable fact but rather the enacted neo-liberal globalization has created structures of power enforcement like the WTO [39]. Globalization works ideologically within discourse and in conjunction with those in power to enhance control over others. It entails action at a distance, where social processes and social relations are stretched out across the globe. Globalization has networks, connections, and interactions that are spatially unbound and utilizes communication that is specialized for trans-national interactions [1]. For those countries that only recently emerged from under the direct control of colonialism, they do not benefit from globalization and neoliberal economic policies imposed by the IP regimes [8, 32]. When the WTO rules on Indigenous knowledge are applied, via TRIPS, it likely means that multinational corporations will continue to gain economic controls and legal power over this knowledge and genetic resource of communities in the Global South.

This knowledge governance regime reflects the underlying values of those currently in structural power positions, and it is no surprise that IPR is designed to commodify knowledge. The nature of knowledge within this modern system will always require rules restricting how knowledge is to be used and will always be politically negotiated [42]. Those who control knowledge, like holders of IPR, have the legal authority in the transmission of that knowledge and the ability to limit its access. With the dominance of Western, individualistic, and a market-based society, the commodification of knowledge through IPR is historically seeped in unequal power structures. This current global intellectual property regime controls the way information, science, and culture are disseminated, controlled, and accessed [12, 42, 43].

The Global North continues to hold enormous bargaining power within IPRs and decides the rules of engagement for those outside, specifically in this context: Indigenous and local communities. Protection of traditional knowledge through IPR's are primarily awarded for their newness aspect which is infused in modernity's search for the 'new' and its move away from anything seemingly 'old' or 'traditional'. Eurocentric knowledge asserts itself while disqualifying the vocabulary and logic of

other knowing practices and knowledge systems [15]. The shrinking of Indigenous or traditional knowledge systems demonstrates how the colonial world constructs and contains knowledge. These rules reinforce subjectivities that places dominance and subservience within that system and seeks to control and erase all previous knowledge systems.

In order to be considered for protection, TK has the option to adhere to the *sui generis* criterion. This criterion mimics general IPR requirements of definition, that of which, TK does not possess. A *sui generis* system of protection must also be implemented by the nation-state of which the TK is held within. If a *sui generis* system of protection isn't possible, the suggestion is made that Indigenous and local communities categorize their knowledge within a database. For Indigenous and local communities to trust the nation-state that is requesting to not misappropriate their knowledge and trust that their knowledge will not be misused, greatly ignores the historical relationship between the state and these groups. The discourse presented reinforces the CMP through the implementation of management and control through the trade economy and knowledge (re)production.

Discourse is one of the places that reinforces modernity's epistemic and ontological claims. Discourse can legitimize or delegitimize power structures. The relationship between discourse and social structures is dialectical; discourse assumes such an important role in power relationships, power struggle, and the maintenance of power exercised through social structures. Behind the power of discourse is not necessarily the social institution itself, but rather the power-holders of that given social institution. Captured in this CDA is language used by dominant social structures to describe and position Indigenous peoples and local communities. The language used to describe Indigenous and local communities continues to position them outside the field of influence and in need of education by Western institutions.

This current persistence of social structures like the WIPO and WTO will always be in opposition of Indigenous methodologies and knowledge systems. IPRs are developed and ignore possibilities for inclusion of other knowledge production sites; a symptom of the CMP. A world centered on land acquisition and resource extraction is incapable of creating a world that is life-giving, sustaining, non-linear. Traditional knowledge offers other types of modalities and ways of being and an option of how to live the human experience; it is truly knowledge of its own kind.

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References

1. Fairclough, Norman. 2006. *Language and globalization*. Routledge.
2. WIPO. 2021. Traditional knowledge. World intellectual property organization. <https://www.wipo.int/tk/en/tk/>.
3. Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore—The protection of traditional knowledge: Updated draft gap analysis. 2019. https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_40/wipo_grtkf_ic_40_7.pdf.
4. Verma, Surinder Kaur. 2004. Protecting traditional knowledge: Is a sui generis system an answer? *Journal of World Intellectual Property* 7 (6): 765.
5. United Nations Conference on Trade and Development. 2004. Report of the UNCTAD-commonwealth secretariat workshop on elements of national sui generis systems for the preservation, protection and promotion of traditional knowledge, innovations and practices and options for an international framework. <https://digitallibrary.un.org/record/566934?ln=en>.
6. Convention on Biological Diversity. 1992. <https://www.cbd.int/convention/text/>.
7. Brinckmann, Josef. 2017. Owning up to owning traditional knowledge of medicinal plants. In *A critical guide to intellectual property*, eds. Matt Callahan and Jim Rogers. Zed Books Limited.
8. Callahan, Matt and Rogers, Jim. 2017. Why intellectual property? Why now? In *A critical guide to intellectual property*, eds. Matt Callahan and Jim Rogers. Zed Books Limited.
9. Darch, Colin. 2017. Intellectual property rights and their diffusion around the world: Towards a global history. In *A critical guide to intellectual property*, eds. Matt Callahan and Jim Rogers. Zed Books Limited.
10. Harris, Cheryl. 1993. Whiteness as property. *Harvard Law Review*.
11. VanGrasstek, Craig. 2013. The theory and practice of the multilateral trading system. In *The history and future of the world trade organization*. World Trade Organization.
12. McKimmy, Paul. 2017. Free software and open source movements: From digital rebellion to Aaron Swartz -responses to government and corporate attempts at suppression and enclosure. In *A critical guide to intellectual property*, eds. Matt Callahan and Jim Rogers. Zed Books Limited.
13. Arewa, Olufunmilayo. 2006. TRIPs and traditional knowledge: Local communities, local knowledge, and global intellectual property frameworks. *Marquette Intellectual Property Law Review* 10 (3): 155.
14. Hall, Stuart. 1992. The rest and the west: discourse and power. In *Formations of modernity*
15. Mignolo, Walter. 2018. *What does it mean to decolonize? In on decoloniality: Concepts, analytics*. Praxis: Duke University Press.
16. Arvin, Maile. 2015. Analytics of indigeneity. *Native studies keywords*, eds. Stephanie N. Teves, Andrea Smith, & Michelle H. Raheja. University of Arizona Press.
17. Dussel, Enrique. 2002. World-system and “trans”-modernity. *Nepantla: Views from South*. Duke University Press, 3(2).
18. Quijano, Anibal. 2000. The coloniality of power and social classification. *International Sociology*, 15(2).
19. Mignolo, Walter. 2018. *Eurocentrism and coloniality: The question of the totality of knowledge*. In *On Decoloniality: Concepts, Analytics, Praxis*. Duke University Press.
20. Mignolo, Walter. 2018. *The invention of the human and the three pillars of the colonial matrix of power (racism, sexism, and nature)*. In *On Decoloniality: Concepts, Analytics, Praxis*. Duke University Press.
21. Simpson, Leanne Betasamosake. 2017. *As we have always done: Indigenous freedom through radical resistance*. University of Minnesota Press.
22. Goeman, Mishuana. 2015. Land as life. *Native studies keywords*, eds. Stephanie N. Teves, Andrea Smith, & Michelle H. Raheja. University of Arizona Press.
23. Abu-Lughod, Janet. 1989. Studying a system in formation. In *Before European hegemony: The world system A.D. 1250–1350*. Oxford University Press.
24. Frank, Andre Gunder. 1998. *Why did the west win (temporarily)?* In *ReOrient: Global economy in the Asian age*. University of California Press.
25. Wallerstein, Immanuel. 1974. The rise and future demise of the world capitalist system: Concepts for comparative analysis. *Comparative studies in society and history*. Cambridge University Press, 16(4).

26. Wallerstein, Immanuel. 2011. The strong core-states: Class formation and international commerce. In *The modern world-system I: Capitalist agriculture and the origins of the European world-economy in the sixteenth century*. University of California Press.
27. Rostow, Walt Whitman. 1990. In *The stages of economic growth: A non-communist manifesto*. Cambridge University Press.
28. Frank, Andre Gunder. 1966. In *The development of underdevelopment*. Monthly review, 18.
29. Wallerstein, Immanuel. 1974. Dependence in an interdependent world: The limited possibilities of transformation within the capitalist world economy. *African studies review*. Cambridge University Press, 17(1).
30. Jackson, John. 1997. *The international institutions of trade: The WTO and the GATT*. In *The World Trading System: Law and policy of international economic policy*. The MIT Press.
31. Gilpin, Robert. 2000. The insecure trading system. In *The challenge of global capitalism: The world economy in the 21st Century*. Princeton University Press.
32. WIPO. 2021. Summary of the Berne convention for the protection of literary and artistic works (1886). World intellectual property organization. https://www.wipo.int/treaties/en/ip/berne/summary_berne.html.
33. Halbert, Debora. 2017. Rethinking the world intellectual property organization. In *A critical guide to intellectual property*, eds. Matt Callahan and Jim Rogers. Zed Books Limited.
34. King, Nigel. 1998. Template analysis. In *Qualitative methods and analysis in organizational research: A practical guide*, eds. Gillian Symon and Cathy Cassell. Sage Publications Ltd.
35. TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights. 1994. Marrakesh agreement establishing the world trade organization, Annex 1C, https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm.
36. The relationship between the TRIPS agreement and the convention on biological diversity—Summary of issues raised and points made. 2006. https://www.wto.org/english/tratop_e/trips_e/ta_docs_e/4_ipcw368rev1_e.pdf.
37. Review of the provisions of article 27.3 (b)—Summary of issues raised and points made. 2006. https://www.wto.org/english/tratop_e/trips_e/ipcw369r1.pdf.
38. The protection of traditional knowledge and folklore—Summary of issues raised and points made—Note by the secretariat. 2006 https://www.wto.org/english/tratop_e/trips_e/ta_docs_e/4_ipcw370rev1_e.pdf.
39. Fairclough, Norman. 2015. *Language and power*. Routledge.
40. Chouliaraki, Lilie and Fairclough, Norman. 1999. *Discourse in late modernity: Rethinking critical discourse analysis*. Edinburgh University Press.
41. Fairclough, Norman. 2003. *Analysing discourse: Textual analysis for social research*. Routledge.
42. Haggart, Blayne. 2017. What is intellectual property? In *A critical guide to intellectual property*, eds. Matt Callahan and Jim Rogers. Zed Books Limited.
43. Horten, Monica. 2016. *The closing of the net*. Wiley.

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