

Journal of Intellectual Property Rights Vol 28, November 2023, pp 500-509 DOI: 10.56042/jipr.v28i6.5776



Economic Justification of Traditional knowledge with Insights from Identity Economics

Anshuman Sahoo[†]

Rajiv Gandhi School of Intellectual Property Law, IIT Kharagpur, West Bengal — 721 302, India

Received: 17th December 2020; revised: 25th September 2023

Within the conventional economic framework, the defence of traditional knowledge as a form of Intellectual Property often lacks a robust foundation. While human rights theories offer a more compelling justification, the economic rationale for protecting traditional knowledge remains elusive at the international stage. This ambiguity has even prompted some academics to challenge the relevance and practicality of safeguarding traditional knowledge through the framework of intellectual property rights. This paper seeks to present an economic argument in favour of traditional knowledge protection, drawing from the principles of 'Identity Economics'. Interestingly, identity economics provides a rationale for both the widely accepted positive protection and the more debated negative protection of traditional knowledge. Furthermore, the paper delves into justifying additional policy measures to enhance the protection of traditional knowledge.

Keywords: Traditional Knowledge, Economic Rationale, Economic Justification, Identity Economics, Property as Identity

Discourses surrounding traditional knowledge and its protection often involve a tacit presumption regarding the propertarian nature of traditional knowledge. Proponents of traditional knowledge protection argue that traditional knowledge should be conceptualized within the ambit of intellectual property, meriting protection not merely as an intellectual property but as a reflection of collective moral rights of a community and other distributive justice concerns. However, these justifications centred around collective moral rights and distributive justice largely sidestep the lens of economic efficiency and lean heavily on the principles of justice and equity while advocating for a robust framework for the protection of traditional knowledge and traditional cultural expressions.

However, this ethic-centric rationale for safeguarding Traditional knowledge can, at times, work counter intuitively against its very proponents, especially in a neoliberal global policy framework deeply rooted in the Law and Economics (L&E) approach. In the face of scientific uncertainties and political intricacies, policymakers often lean on socially constructed norms to shape what they anticipate will be an efficient IP protection system, giving way to a 'rhetorical war' as stakeholders employ ethical discourses to champion their preferred

†Email: anshuman@thelawblog.in

norms within the international regime. Yet, such ethical arguments should be deployed strategically and sparingly. The primary thrust of the argument ought to find firm footing in economic theories, considering the pivotal role the L&E approach holds in the international intellectual property landscape. An absence of robust economic underpinnings casts shadows over the aptness of situating traditional knowledge within the broader Intellectual Property sphere, for at least two reasons. Firstly, jurisprudential theories of property rights, steeped in traditional economic doctrines, often fail to justify traditional knowledge due to its communitarian nature. Secondly, certain tenets of the Traditional knowledge protection framework, like perpetual duration of protection, run counter to the foundational trade-offs (quid pro quo) central to Intellectual Property protection.

In light of the rhetorical wars and the prominence of the Law and Economics (L&E) approach in shaping international intellectual property debates, the very genesis of the traditional knowledge discussion on the international stage routinely attracts scrutiny. Many scholars cast a sceptical eye, noting parallels between traditional knowledge and other intellectual properties in their shared roots within international political arenas. While traditional knowledge has always been a part of human history, the mounting emphasis on endowing it with IP-like negative rights

is a contemporary shift. This evolution can be substantially attributed to the amplified political engagement of indigenous communities. Armed with refined tactics and collaborative strategies, these communities have ushered in a resonant indigenous voice in global political dialogues. This political underpinning of traditional knowledge doesn't escape the critical gaze of scholars versed in IP critiques who justifiably believe that any state-granted monopoly-like rights (exclusive rights that run counter to the commons) over intellectual works demand a rigorous cost-benefit scrutiny and should be endorsed only if they demonstrably enhance societal welfare.

Against this complex backdrop of intellectual property discourses, this article endeavors to bridge the gap in potent economic rationales supporting traditional knowledge by weaving in the nuanced perspectives from identity economics. It is suggested that grounding an economic justification in the principles of identity economics—rather than purely on efficiency and innovation theories—offers a more comprehensive and robust rationale for treating traditional knowledge as a protected form of intellectual property. In attempting the same, getting into the human rights aspect of communitarian identity is avoided. While it is being recognised that 'identity' of a community can be a fundamental human right, and right-centric justifications for traditional knowledge can very well be built on this premise of identity protection, that exceeds the purview of this article for at least two reasons. Firstly, the intent is to explore and spotlight the economic models within identity economics that can underpin traditional knowledge. Secondly, given the already extensive humanitarian arguments, including those grounded in identity as a human right, we aim not to overburden that already well-trodden path in literature.

The focus of this article shall be on justifying traditional knowledge with the tools of identity economics. The game-theoretic model proposed in the foundational paper by Akerlof and Kranton¹ will be the reference point for importing the tools of identity economics. The tools and insights from identity economics, then, shall be used to justify:

- (i) Positive protection for traditional knowledge;
- (ii) Negative protection for traditional knowledge; and
- (iii) Supplemental policy interventions to enhance and protect traditional knowledge.

Traditional knowledge and Prevalent L&E Approach to Property Jurisprudence: An Uncomfortable Match

It is the assumption of the neo-liberal economy that a free and competitive market is the best way to allocate the resources of a society, and hence we try our best to leave the market as it is except for the occasion anti-trust interventions competition. However, a free market may be crippled by externalities. And hence the government attempts, with the help of policy interventions, to minimise the and consequences of various market externalities. One very frequent market externality in the market of ideas and innovations is the free riding problem: where the hard work and labour of the innovator is appropriated to cause unfair gain to another market player at the cost of the original innovator. Free riding threatens the very viability of a vibrant innovation marketplace, and hence the government comes up with policy interventions in the form of Intellectual Property Rights to prevent free riding and enable the vibrant operation of a free and competitive marketplace in innovation.

The above paragraph summarises the dominant economic justification for granting protection of Intellectual Property Rights to any specific genre of Intellectual Property. There are, however, a number of other ancillary justifications for Intellectual Property protection, like the labour-desert theory, or the incentive theory, among others. In this part, traditional knowledgeis pitched in against each of dominant theories justifying intellectual and assesses the strength of such justification in justifying traditional knowledge. Towards the end of this exercise, it is concluded that traditional knowledge is indeed a misfit when it comes to intellectual property, and none of the existing justifications of property successfully iustifies a 'rigorous' protection of traditional knowledge.

'Labour-Desert' Theory

The original version of the labour-desert theory can be traced back to Locke's Two Treatises of Government.² The labour-desert, or the 'value-added', theory is a broadly applicable justification for private property in general, and finds specific application in justifying Intellectual Property as well. In the heart of this argument, it holds that "when labor produces something of value to others — something beyond what morality requires the laborer to produce — then

the labourer deserves some benefit for it". This argument justifies a natural right over private property that forms the basis of most of the property theories.

Applied to intellectual properties, this theory faces certain issues, like ownership over the intellectual commons. A number of scholarly literatures examine this issue to draw out the relationship between various kinds of intellectual properties and parallel or analogous non-intellectual properties, and there have been contrasting findings. For example, Lemley in 'Property, Intellectual Property, and Free Riding' argues that it will be a mistake to treat intellectual property "just like" real property, 4 whereas Smith in a contemporary paper argues that intellectual properties bear close similarities to real properties because of the information cost involved in delineating and enforcing exclusionary rights.⁵ However, scholars broadly agree on its applicability to justify intellectual properties generally, although the applicability tends to be very thin.^{6,7}

The desert theory, at some points, can be said to have an utilitarian rather than a natural rights tone, when applied to intellectual property. For example, when Aristotle advocated private property in Politics (book II), he opines that property may be treated as a common property only in a certain sense, but it must be private as a general rule. The reason he gives for such a private delineation of property is that when everyone has distinct interests, it may help avoiding friction of interests and lead to harmony in society. In this sense, the desert theory shares a close similarity with the stability theory of property.

Applying desert theory to traditional knowledge has authoritative, if not considerable, scholarly support. The WIPO Composite Study on the Protection of Traditional knowledge argues stability and utility in the long run as "reasons for IP protection of TK". It further argues, that "a clear, transparent and effective system of TK protection increases legal security and predictability to the benefit not only of TK holders, but also of society as a whole...". ¹⁰

The criticism for applying desert theory to traditional knowledge, however, has some arguments strong enough to weaken the authoritative findings of the WIPO Composite Study. As counter intuitive as it may seem, the objection doesn't come from traditional knowledge being a community right: scholars admit that "desert is not conceptually tied to individuals, and may sometimes be ascribed to

groups".² The issue, however, lies in the fact that the group of innovators that traditional knowledge can be ascribed to are long dead; and desert theory doesn't justify desert to be perpetually available even to the remote descendants of the innovators².

The claim for perpetual desert in innovation may bring here some interesting analogies with the Trade Secret Law. However, the case of traditional knowledge must be distinguished from that of trade secret, since Trade Secret Law places on the right holder an obligation to keep the knowledge a secret, and it stops being operative the moment the secret becomes public.

Incentivising Innovation

The dominant economic model for justifying intellectual properties in general, this theory argues that exclusive protection must be granted to intellectual properties so as to incentivise innovators. This theory assumes that innovation either requires or is catalysed by market incentives. This theory recognises the possible welfare losses that may be accrued by the society at large by granting monopoly rights over intellectual properties, and hence advocates for a bargain between the society as a whole and the innovator.¹¹

This theory may be termed as the most misfitting theory in justifying the protection of traditional knowledge as an intellectual property. Firstly, traditional knowledge is not an ongoing market-driven innovation model, but an innovation that has existed since time immemorial. Not only the innovators cannot be incentivised now since they are long dead, but also the innovators did not need any market incentives for their innovations since their act was directed at ensuring survival rather than financial security.

At most, the incentivisation model may be justified to encourage incremental improvements to the existing traditional knowledge². But that argument, too, faces a paradoxical roadblock: the more incremental improvements are added to an existing traditional knowledge, the less traditional it becomes. Also, since the incremental improvements are very much capable of being protected under the other standard intellectual property rights, the claim for a traditional knowledge IP right seems redundant.

Incentivising Commercialisation

In addition to the original 'incentive theory' which focuses on incentivising innovation, another incentive argument is put forward to justify traditional knowledge. Originally proposed in the area of patent protection regime, ^{12, 13} this theory argues that an exclusive protection mechanism may encourage investment and market prospect of an intellectual property. It is an utilitarian argument which assumes that useful and innovative traditional knowledge will find market share and investors in the presence of a robust protection regime.

Although a strong argument, it has at least three limitations². Firstly, it doesn't justify the whole body of traditional knowledge that communities may hold. It justifies only those pieces of traditional knowledge and traditional cultural expressions that the communities may wish to commercialise. Hence, it leaves out the non-commercialised traditional knowledge as unprotectable. Secondly, although a strong justification, it still doesn't justify a perpetual duration of protection for traditional knowledge. It may justify only those ventures that are based purely on some traditional knowledge and at a nascent stage. Thirdly, the act of incentivising commercialisation is mostly a policy domain rather than legal. It is difficult, if not impossible, to lay down a set of exclusive rights that is precise in language and scope. In the absence of such precision in the law, there is a possibility of over-investment or under-investment in traditional knowledge commercialisation which may backfire for the original TK-holders. Particularly worrisome is the possibility of overinvestment. For one, it will increase the financial burden on the resource-constrained indigenous people. For another, it may invite the involvement of strong corporate lobby in the traditional knowledge domain, which may replace indigenous people with big corporate houses as the main beneficiary of the protection regime. With the corporate lobby entering the protection equation, it may invoke 'rent-seeking behaviour' in the name of protection.¹⁴

Facilitating Fair Trade

Another argument justifying an exclusionary protection regime for traditional knowledge is the role that such a protection regime may play in ensuring fair trade at an international level. This argument hinges on the assumption that international trade is inherently desirable given its efficiency and welfare maximising promises. We may look at the WIPO Composite Study¹⁵ for an authoritative version of this argument. The argument provided by the WIPO Composite Study concerns itself with the unjust

enrichment of manufacturers residing in the host country to which the traditional knowledge belongs. In the absence of a strong IP protection regime for traditional knowledge and genetic resources, the traders belonging to the host country get the traditional knowledge and associated genetic resources for next to nothing, whereas the manufacturers and traders abroad may have to pay a significantly higher cost for the same. This puts the "foreign IP holders at a disadvantage vis-a-vis the local imitators" thus amounting to a "non-tariff barrier to trade",12. Despite the strength of the argument provided by the WIPO composite study, a more plausible scenario would be the unjust enrichment of foreign traders and manufacturers at the expense of local indigenous communities².

This argument is broader in scope than the previous argument since it depends only on the marketability of the traditional knowledge, irrespective of the intentions of the knowledge holders. However, the primary roadblock for this argument lies in its impracticability. The only seemingly solution out of the aforementioned unfair trade practice is the allotment of royalty to even the unfairness. However, there lies tremendous difficulties in ascertaining the quantity and quality of the royalty. A very relevant example in this context would be the access benefit sharing mechanism proposed by the Nagoya Protocol. In spite of the proposed framework, there doesn't seem to be significant impact on the protection or enhancing of traditional knowledge. ¹⁶

Avoiding Confusion

The final strand of the dominant arguments justifying traditional knowledge protection is the argument that traditional knowledge must be protected to avoid confusion between various categories of goods and services. This argument is borrowed from the economic justification of Trademark Law,¹⁷ and its application can already be seen in certain segments of traditional knowledge protection like the geographical indication marks. However, while geographical indications seem to be well justified under the claim of search cost minimisation, it is highly doubtful whether the same justification can be used to justify any other genre of traditional knowledge which is not already covered under geographical indication marks.¹⁸ Traditional knowledge, as a whole, cannot be justified by borrowing justifications from Trade Mark Law because Trade Mark Law is designed to protect

the interests of the consumers rather than the producers².

L&E Justification of Traditional Knowledge Protection with Identity Economics

Much of the recent economic theories are predominantly based on the rational choice theory: they presume complete rationality on the part of the market players in their market behaviour and transactions. Although, they do a good job in taking us close enough to the real picture, they fail to fit the puzzle pieces together when placed in the context of a bigger picture. This incompleteness of the rational choice economics has been criticised by a number of scholars, for example, Simon1^{19, 20} and Kahnemann ²¹ Identity Economics is one such interdisciplinary branch of economics which incorporates the psychological and sociological aspects of identity into a rigorous game theoretic model of economics to predict how identity-induced payoffs can contribute to and alter economic utilities.

Through much of the academic history, identity has often been the subject matter of philosophy and sociology. When it comes to policy, the only relevance of identity was in Human Rights legislations. However, Akerl of in her seminal contribution in 2000,³ points out why identity payoffs are indeed an important consideration for building holistic economic models. Firstly, identity helps us explain behaviours that appear to be detrimental. Detrimental behaviours are almost impossible to be explained by the rational choice theory, since the rational choice theory models each market player as a completely rational being who, at all times, strives to maximise his wellbeing. Bringing in identity into the equation helps us explain those puzzling behaviours. Secondly, identity creates a unique kind of externality. Since the existing economic literature has established that externalities, when left untreated, can cause market failure, understanding and incorporating the nature of identity externalities become crucial for the smooth functioning of the market. Thirdly, identity can be used as a policy tool for influencing the behaviour of market players. And finally, the most important economic decision people may face in their lives may not be the choice to buy or sell something, but the act of choosing their identity. The relevant findings of identity economics are mapped with traditional knowledge protection to reach at an economic justification for a strong protection mechanism for traditional knowledge.

Identity Economics

The foundational statement on which the whole fortress of identity economics is built is "identity, a person's sense of self, affects economic outcomes" ³. Identity Economics revolves around ascertaining and determining the identity-based payoffs that people accrue by virtue of their identities.

The game theoretic models relying on the traditional economic theory generally perceive utility gained or lost by a person j to be a function of his actions a_j , and the actions of persons other than him a_j . The model looks something like:

$$U_i = U_i(a_i, a_{-i})$$

Identity economics proposes a slightly different model, by incorporating another term in the utility function:

$$U_i = U_i(a_i, a_{-i}I_i)$$

where I_j denotes the identity/image of person j as perceived by himself.

The I_j again is a function of multiple other factors. The identity of a person inevitably depends on his actions, as well as the actions of others. In addition to that, it also depends on the characteristics or features that describe the person j. Identity, although sometimes may be a personal choice, most of the times is an imposition by the society which a person lives in. The socially assigned identity, then, significantly shapes the self-perception of an individual. Identity is also affected by the prescribed norms and behavioural pattern for the assigned identity, and the extent to which person j and others conform to those prescriptions. Identity of a person j, then, may be modelled as:

$$I_i = I_i(a_i, a_{-i}, c_i, e_i, P)$$

where a_j and a_{-j} bear their previously assigned meaning; c_j is the social category assigned to j; e_j is the set of characteristics of person j with respect to the prescribed characteristics for his c_j ; and P is the extent to which person j and others conform to the behavioural prescriptions for their assigned c_i^3 .

In their paper, Akerlof and Kranton³ provide a game theoretic model of identity payoffs that takes into consideration the possibility of identity externalities. Consider two persons: person 1 and person 2. Person 1 likes activity 1, and identifies himself as 'Green'. Person 2 likes activity 2, and identifies himself as a 'Red'. If person 1 and person 2 perform activities 1 and 2 respectively, they both gain an utility of amount V, since they both are engaged in

the activity they like. However, if person 1 engages in activity 2, or person 2 engages in activity 1, the utility gain is 0 (zero).

There may be identity externalities also. In a situation, where one person suffers a loss or gain in identity because of the acts or omissions of some other person, such change in identity may be denoted as I_o. Identity lost or gained due to one's own activities may be denoted as I_s.

The whole utility trade off that is involved can be expressed by a simple game theoretic model of the situation. To illustrate the impact of identity externalities, let's assume person 1 wants person 2 to undertake activity 1, the reason being prescription P requires person 2 to do so. Suppose person 1 undertakes activity 1. Now, the person 2 has a choice of undertaking activity 1 or 2. If person 2 gives in to the will of person 1 and undertakes activity 1, person 1 ends up with utility V and person 2 with utility 0. If, however, person 2 chooses to undertake activity 2 in defiance of person 1's will, then person 1 has a choice to either respond to it or not. Let's say person 1, by reason of person 2 undertaking activity 2, suffers an identity loss of I_o and person 2 suffers an identity loss of I_s. However, if person 1 responds to person 2 undertaking activity 2, he can restore I_o at a cost of c to himself and cost L to person 2. So, in the event of person 2 undertaking activity 2, there can be two possible utility distributions. If person 1 does not respond to restore I_o, then the utility gains will be (V-I_o) for person 1, and (V-I_s) for person 2. If person 1 chooses to respond to restore I_o, then the utility distribution will be (V-c) for person 1, and (V-I_s-L) for person 2 (Table 1).

The complex interplay between costs and benefits associated with identity, as represented by c, L, I_s, and I_o, offers deep insights into the challenges and potential pathways for policy interventions. The cost, c, signifies what person 1 expends to mend their identity after it's confronted by person 2's actions. When this cost is high compared to I_o, the identity loss due to another's activities, it implies that addressing identity-related grievances can be prohibitive. In such scenarios, policies might be directed toward reducing this restoration cost. This

could involve initiatives like fostering open dialogue, encouraging mutual understanding, or establishing forums for airing grievances without significant expenditures.

On the other hand, L denotes the adverse impact borne by Person 2 when Person 1 takes corrective actions to reclaim their identity. A high value of L suggests that the repercussions of restoring one's identity can be severe for others. Policies in this vein might focus on reducing these impacts. Educative measures about the importance of diverse identities or introducing conflict resolution mechanisms could be beneficial.

The parameter I_s, representing the loss felt by an individual when acting contrary to their prescribed identity, when high, indicates a strong penalty, either internally or socially, for deviating from identity norms. Such a situation calls for policy strategies that either work to expand societal norms or provide support for individuals who feel stifled by these constraints.

Lastly, a significant I_o value, denoting the identity loss from others' actions, reveals heightened sensitivities to behaviors that deviate from expected norms. Such sensitivities may demand policies that underscore mutual respect, tolerance, and cross-cultural or cross-identity understanding.

In essence, navigating the relative magnitudes of c, L, I_s, and I_o, presents policymakers with a comprehensive landscape. It provides an avenue to devise interventions tailored to address identity-based tensions, foster mutual respect, and pave the way for a more inclusive society.

Mapping Traditional Knowledge onto Identity Economics

For applying identity economics, we must begin with grouping the society based on their identities. To simplify our analysis, let's consider only two groups: *the indigenous people*, consisting of members of any given indigenous community, and *the outsiders*, consisting of all the people who aren't members of that given indigenous community. It may be noted that the groups we have defined are not overlapping, and are complimentary sets of the population.

Table 1 — Game theoretic model of identity trade-offs			
	Person 2 chooses Activity 1	Person 2 chooses Activity 2 (and Person 1 doesn't respond)	Person 2 chooses Activity 2 (and Person 2 responds)
Person 1 undertakes Activity 1	Person 1: V Person 2: 0	Person 1: V-I _o Person 2: V-I _s	Person 1: V-c Person 2: V-I _s -L

Taking the indigenous people as the group of reference, the acts and omissions by the indigenous people may be denoted with a_j , and the acts and omissions of outsiders may be denoted with a_{-j} . The C_j in this context, will be the categorisation of indigenous and non-indigenous (outsiders) people. The e_j , or the distinguishing characteristics, may be mapped with the distinct socialisation process and environment of the indigenous people and the resultant traits or characteristics in the members of the indigenous communities.

Justifying Positive Protection for Traditional Knowledge

In their seminal paper, Akerlof and Kranton³ claim that people can accrue identity-based payoffs from their own actions. That is, an action a_j can impact U_j by reason of its impact on I_j. A number of real-world examples, like self-mutiliation,²² body piercing and tattooing, adventure sports, travel etc., sufficiently affirm this claim.

When discussing Traditional Knowledge, one must consider the nuanced and layered identities of indigenous communities. Their practices, rituals, and traditions aren't just mere activities; they're deeply entwined with their identity and societal fabric. When an indigenous individual or community practices a tradition rooted in their ancestral knowledge, the utility derived isn't merely from the act itself but from the reaffirmation and recognition of their identity, I_j. This identity-based utility gain emphasizes the importance of these practices beyond materialistic or economic values.

Moreover, Identity Economics underscores the consequences of identity incongruence, where individuals feel a dissonance between their actions and their identity. If indigenous youth abandon their traditional practices in favor of a dominant or western culture, the perceived benefits might be immediate, but the identity cost, in the long term, could be profound. This disconnect can manifest in myriad ways – from feelings of alienation, loss of self-worth, to more tangible repercussions like community ostracization.

Furthermore, when we consider the I_s costs, which are identity costs borne by the individual due to their actions, and the I_o costs, those suffered because of others' actions, we understand that a harmonious society must actively work to minimize both. For Traditional Knowledge, this is crucial. When indigenous people feel that their traditional practices are met with disdain or incomprehension by the

broader society, the I_o costs rise. Policies that promote understanding and appreciation of indigenous traditions can help diminish these costs.

Similarly, reducing I_s costs involves actively addressing the barriers indigenous people face when trying to practice their traditions. This could mean offering educational programs that integrate traditional knowledge, creating platforms for indigenous youth to engage with their heritage, or ensuring economic opportunities don't come at the expense of forsaking one's traditional practices.

A deeper dive into Identity Economics also reveals the cascading effects of identity externalities. If one member of the community abandons traditional practices, it might influence others, especially impressionable younger members, to follow suit. Conversely, if prominent community figures or influencers actively embrace and promote traditional knowledge, it can trigger a positive domino effect. In essence, to truly value and protect traditional knowledge, policymakers must recognize and respect the deep-seated identity payoffs intertwined with it. Identity Economics doesn't merely justify the positive protection of traditional knowledge; it mandates it, emphasizing the richness and complexity of human decision-making beyond mere economic rationality.

Utilizing Identity Economics as a foundation for advocating the protection of traditional knowledge offers a nuanced and holistic perspective that transcends many of the limitations of conventional economic arguments. The primary strength of this approach lies in its recognition of the intrinsic value of identity, which is deeply embedded within traditional knowledge. One of the standout advantages employing an identity economics-based justification is its inherent inclusivity. Traditional methods of valuation, often rooted in tangible metrics like commercial viability, inadvertently create a hierarchy of importance, placing monetarily valuable knowledge on a higher pedestal. In stark contrast, the identity economics framework asserts that every facet of traditional knowledge, whether commercially lucrative or not, plays a pivotal role in shaping and reinforcing the identity I_i of a community. Hence, the commercial potential or marketability of a piece of becomes secondary, knowledge ensuring comprehensive protection regime that encapsulates the entirety of a community's knowledge system.

Further fortifying this approach is its tacit endorsement of perpetual protection for traditional knowledge. The usual arguments against infinite duration revolve around concerns of hindering innovation or creating undue monopolies. However, when viewed through the lens of identity economics, it becomes evident that traditional knowledge isn't a static commodity with diminishing utility over time. Instead, as acts and behaviours a_j persistently influence the identity I_j of indigenous people, the need for protection remains consistent, irrespective of the passage of time. This perspective nullifies the rationale for introducing arbitrary time caps on the protection of such knowledge.

Beyond these arguments, the identity-centric approach addresses a pressing concern that often gets overshadowed in mainstream discussions: the intergenerational transmission of traditional knowledge. A significant portion of this invaluable knowledge teeters on the brink of oblivion, not primarily due to external threats, but because successive generations are distancing themselves from their ancestral practices. By emphasizing the identityaffirming value of traditional knowledge, younger members of indigenous communities can be made to perceive this knowledge not merely as archaic lore but as an intrinsic part of their self-identity. By bolstering their connection to their roots, we not only ensure the preservation of traditional knowledge but also foster a sense of pride and belonging in younger generations.

Justifying Negative Protection for Traditional Knowledge

Negative protection for Traditional knowledge is a much more contested issue as compared to the positive protection of the same. At its core, negative protection effectively envisions an IP-oriented, exclusionary paradigm for traditional knowledge, much to the chagrin of IP-minimalist scholars. These advocates, ardent believers in the sanctity of the public domain, caution against the potential encroachments upon this space. Munzer and Raustiala,² for instance, postulate that an overly aggressive traditional knowledge protection framework threatens to erode the diminishing reserves of the public domain, thereby undermining a foundational pillar of international IP law. Maintaining a vibrant public domain, they argue, is "an under-appreciated but important goal of international IP Law". Yet, it's worth noting that similar critiques pervade discussions on other forms. However, the collective underpinning traditional knowledge perhaps lend it more weight, making its protection all the more crucial.

Venturing deeper into the intricacies of identity economics unveils the profound influences of external actions, symbolized by a_{.j}, on individual or communal identity, denoted as I_j. Renowned economists Akerlof and Kranton shed light on this complex interplay through an evocative case study detailing the nuanced shifts in masculine identity perceptions as women gain prominence in historically male-centric professions. Another enlightening exploration can be found in Nisbett and Cohen's study²³ on the 'culture of honor', which delineates how community-defined honor codes can shape and alter identities.

These investigations, although revealing some disconcerting facets of identity economics, drive home a salient point: external interventions have the potency to significantly and detrimentally reshape identities. When this understanding is applied to the realm of Traditional Knowledge, it is unmistakably clear that unauthorized appropriations or commercial exploitations of indigenous practices—be it in cultural expressions, art forms, or medicinal lore—stand as epitomic a_{-i} actions. Such actions, overt or covert, not only undermine the intrinsic value of traditional knowledge but also compromise the very identity fabric of indigenous communities. It's here that the imperative for a robust negative protection framework for traditional knowledge emerges, a framework geared towards thwarting such encroachments and preserving the sanctity of indigenous identity.

Beyond mere protective barriers, there lies an equally crucial dimension of policy craftsmanship. Policymakers, armed with insights from identity economics, can concoct strategies that act as effective deterrents - deterrents that are not mere passive barriers but active mechanisms designed to alter the calculus of potential violators, making infringement not just undesirable, but economically unfeasible. Policymakers, leveraging the sophisticated insights that identity economics offers, can formulate strategies that don't merely act as walls against misappropriation, but more compellingly, as dynamic traps that make transgressions egregiously costly. It's about pre-emptively affecting the decision-making process of potential violators, shifting their assessment of risks and rewards.

Consider, for instance, the cost I_s associated with external actions that impinge upon an indigenous group's identity. Through astute policy designs,

regulators can augment this cost, deliberately inflating it to such a level where it overtakes any perceived value V that might be derived from the unauthorized use of Traditional Knowledge. This inflation can be achieved in various ways: substantial monetary penalties, reputational damage through negative publicity, litigation threats, or even international sanctions in cases of cross-border infringements.

When external entities, be they multinational corporations, researchers, or individuals, recognize that the costs I_s of misappropriating traditional knowledge are not only high but also dwarf the potential benefits V, the calculus shifts dramatically. once-attractive proposition of leveraging traditional knowledge without proper authorization now seems fraught with peril. And crucially, this deterrent remains effective even in the absence of direct retaliation or action from the indigenous communities themselves. The very fabric of the policy ensures that the risk is omnipresent and looming, making unauthorized actions not only ethically questionable but also economically imprudent.

The identity-focused framework for championing negative protection of traditional knowledge isn't just another theoretical proposition—it's a paradigm shift. It challenges, and often surpasses, conventional economic underpinnings in two fundamental ways. Firstly, it makes a forceful case for a perpetual protection mechanism for traditional knowledge, thereby addressing one of the most contentious debates in traditional knowledge policy discourse. Conventional economic models falter here, but identity economics provides a cogent, unyielding rationale for perpetual protection. Secondly, it envelops traditional knowledge in its entirety, ensuring that every fragment—whether commercially viable or spiritually significant—is safeguarded. In essence, rooting traditional knowledge protection strategies in the doctrines of identity economics creates a robust, holistic bastion—one that not only preserves but also reveres the intricate tapestries of indigenous cultures.

Conclusion

In synthesizing the intricate nuances of intellectual property rights, the often-overlooked facet of identity economics emerges as a vital thread. If the global IP paradigm is to evolve into a more pluralistic and culturally nuanced framework, this intersection of identity and economic theory cannot be marginalized.

After all, identity shapes some of the most pivotal life choices and decisions an individual makes; to overlook its influence in economic discourse is to accept an inherently limited analytical perspective.

Aforementioned discussions and arguments have underscored a compelling case: identity economics not only complements but significantly enhances the rationale for traditional knowledge protection in ways other economic theories fall short. Critically, where other theories falter in their restrictive scope or their inability to justify perpetual protection, identity economics stands firm. It offers a rationale expansive enough to embrace the entirety of traditional knowledge, irrespective of commercial viability. Furthermore, it provides a conceptual framework that transcends the limitations of time, advocating for protection that isn't hemmed in by arbitrary temporal boundaries.

Moreover, this intersection of identity and economics doesn't merely offer theoretical arguments; it provides actionable insights for pragmatic policy interventions. It invites a holistic approach to safeguarding traditional knowledge, a perspective that's not just about defense, but about nurturing and celebrating cultural heritage. As the global discourse is gradually leaning towards behavioural economics, the nuanced insights from identity economics should be ushered to the forefront of regulatory policy deliberation.

However, with its nascent status comes a requisite note of prudence. While the potential of identity economics is immense, its full-scale integration into policy necessitates rigorous research — both quantitative and qualitative. It's imperative to ensure that the foundational assumptions of identity economics are robustly tested, validated, and refined. Only with substantial empirical data can we confidently navigate its intricacies and leverage its transformative power. Should this rigorous methodology be adopted, identity economics holds the promise to not only refine but to redefine the contours of the global IP landscape, instilling it with a depth and richness that's truly representative of our diverse global tapestry.

References

- Akerlof G & Kranton R, Economics and identity, *The Quarterly Journal of Economics*, 115 (3) (2000) 715-753.
- 2 Locke J, Two treatises of Government, (Peacock Books, India) Peacock Books Edition 2017. Originally published 1698.

- Becker L, the moral basis of property rights, In *Nomos XXII: Property*, Pennock J and Chapman J ed, (New York University Press, New York) (1980) 187-220.
- 4 Lemley M A, Property, intellectual property and free riding, Texas Law Review, 83 (2005) 1031-1032.
- 5 Smith H E, IP as property: Delineating Entitlements in Information, *Yale Law Journal*, 116 (2007) 1742, 1745.
- 6 Becker L, Property Rights: Philosophic Foundations, (Routledge, New York) Routledge Revivals, 2014, 48-56, Originally published 1977.
- Becker L, Deserving to own intellectual property, *Chicago-Kent Law Review*, 68 (2) (1993) 609-629.
- 8 Aristotle, Politics Book II, in *The Complete Works of Aristotle* (Princeton University Press, Princeton) Jonathan Barnes ed., 1984, Chapter 5, at 1262b 38 1264b 25.
- 9 Hegel G W F, Philosophy of Right, (Dover Publications) S W Dyde trans., 2005, paragraphs 41 – 71.
- 10 WIPO Composite study on the protection of traditional knowledge, 5th session, WIPO/GRTKF/IC/5/8 (28 April 2003).
- 11 Ilie L, Intellectual Property Rights: An economic approach, *Procedia Economics and Finance*, 16 (2014) 548-552.
- 12 Kitch E W, The nature and function of the patent system, *Journal of Law and Economics*, 20(2) (1977) 265-290.
- 13 Merges R & Duffy P, Patent Law and Policy: Cases and Materials, (LexisNexis) Fourth edition, 2007, 253-256.
- 14 Drahos P, Global law reform and rent seeking: The Case of Intellectual Property, in Copyright Law Volume III: Copyright in the 21st Century, Atkinson B & Fitzgerald B

- ed., (Routledge, London) eBook version, 2017, First published 2011.
- 15 WIPO Composite study on the protection of traditional knowledge, 5th session, WIPO/GRTKF/IC/5/8 (28 April 2003) at 15.
- 16 Carvalho N, Sisyphus redivivus? The work of WIPO on genetic resources and traditional knowledge, in *Routledge Handbook of Biodiversity and the Law*, McManis C & Ong B ed., (Routledge, Abingdon) eBook version, 2017.
- 17 Landes W & Posner R A, The Economic Structure of Intellectual Property Law, (Harvard University Press) Illustrated Kindle edition, 2009.
- 18 Raustiala K & Munzer S, The global struggle over geographic indications, *European Journal of International Law*, 18 (2) (2007) 361-63, 365.
- 19 Simon H A, Theories of decision-making in economics and behavioural science, *American Economic Review*, 49 (3) (1959) 253-283.
- 20 Simon H A, Rationality in psychology and economics, Journal of Business, 59 (4) Part 2 (1986) S209-S224.
- 21 Tversky A & Kahnemann D, Judgement under uncertainty: Heuristics and biases, *Science*, 185 (4157) (1974) 1124-1131.
- 22 Khattab H, Women's Perceptions of Sexuality in Rural Giza, (Reproductive Health Working Group, The Population Council) Monographs in Reproductive Health No 1, 1996.
- 23 Nisbett R & Cohen D, Culture of Honor: The psychology of violence in the south, (Routledge, New York) Kindle edition, 2018, First published in 1996 by Westview Press.