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ARTICLE

**THE ALLIANCE BETWEEN ISLAMIC LAW
AND INTELLECTUAL PROPERTY:
STRUCTURE AND PRACTICE**

BASHAR H. MALKAWI*

I. INTRODUCTION

The concept of intellectual property is not new. Protection for creative works was granted under the British Statute of Anne in 1710 and the Statute of Monopolies in 1624.¹ In the 19th century, the term intellectual property began to be used,² and in subsequent years, many of the legal principles governing intellectual property evolved.

In pre-Islamic societies, works of the mind were valued matters and may have qualified as a form of intellectual property. Though this recognition was rudimentary, society gave authors moral rights to their works. For example, poetry was deeply respected in the pre-Islamic era and authors enjoyed an enhanced social standing and esteem. As recognition of the value of their work, poets were compensated for the publication and distribution of their work.³ Some lesser poets were tempted to resort to various forms of theft in order to enhance their standing and wealth.⁴ However, such poets were generally cast from cultural society.⁵

Early Muslim-Arab society continued the practices of the pre-Islamic period with regard to works of the mind and even broadened them. Sharia law includes several considerations whose effects are similar to those of

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1. See SHERMAN BRAD & LIONEL BENTLY, *THE MAKING OF MODERN INTELLECTUAL PROPERTY LAW* 207 (W.R. Cornish et al. eds., 1999). (The British Statute of Anne 1710 and the Statute of Monopolies 1624 are now seen as the origins of copyright and patent law.)

2. See Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 *TEX. L. REV.* 1031, 1034 (2005).

3. See Amir H. Khoury, *Ancient and Islamic Sources of Intellectual Property Protection in the Middle East: A Focus on Trademarks*, 43 *IDEA* 151, 153 (2003).

4. *Id.* at 154.

5. *Id.*

modern intellectual property laws.⁶ For example, the Caliphs—religious and political leaders who are successors of the Prophet Muhammad (s.a.w)⁷—would buy books they considered important and make copies of them after paying an adequate compensation to the author.⁸

The purpose of this article is to elucidate the protection of intellectual property under Sharia law. The article approaches this subject not only historically but also analytically. In particular, the article elaborates on the legal concepts that may provide a basis for intellectual property protection in Sharia by analyzing the present-day challenges of incorporating new types of intellectual property rights under Sharia. The article also examines the reasons for the lack of sufficient protection for intellectual property rights in Arab countries considering that Sharia recognizes these rights in some form.

The article concludes by arguing that although intellectual property does not enjoy explicit legal protection in Sharia, it has been protected through norms and concepts equivalent to today's laws and rights. This proposition is intended to refute any argument that Islamic law and intellectual property cannot coexist and responds to the myth that Islamic law is passé.⁹ However, there are problems regarding intellectual property protection in Arab countries due to religious beliefs, traditional societal culture, a lower degree of economic development, and higher poverty levels. Moreover, the expansion of intellectual property rights and the challenges associated with new innovations render their justification under Sharia more complicated.

The vast majority of the discussion in this article relates most closely to copyright law. However, examples from other intellectual property areas such as patents, trademarks, and trade secrets are mentioned. Additionally, discussion of intellectual property and its relevance will be limited to Sharia law and Arab countries.¹⁰ Thus, it is helpful to provide a background of Sharia law, one of the world's major legal systems. Understanding Sharia

6. Sharia is an Arabic word meaning "the path to follow." The Sharia was compiled during the first three centuries after Muhammad's (s.a.w) death. See Ahmed Zaki Yamani, *The Eternal Sharia*, 12 N.Y.U. J. INT'L L. & POL. 205, 205–06 (1979).

7. *Sallallahu alayhi wasallam*, or Peace be Upon Him, is a phrase that Muslims say after uttering or hearing the name of any of the Islamic prophets.

8. See Heba A. Raslan, *Sharia and the Protection of Intellectual Property—The Example of Egypt*, 47 IDEA 497, 499 (2007).

9. See H. S. Shaaban, Note, *Commercial Transactions in the Middle East: What Law Governs?*, 31 LAW & POL'Y INT'L BUS. 157, 157–58 (1999).

10. For purposes of this article, Arab countries as existing today will be defined as: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Mauritania, Oman, Gaza Strip and West Bank, Qatar, Saudi Arabia, Sudan, Syria, Somalia, Tunisia, United Arab Emirates, and Yemen. For a discussion of Christian Biblical and Jewish law themes concerning intellectual property, see generally Roger Syn, *Copyright God: Enforcement of Copyright in the Bible and Religious Works*, 14 REGENT U. L. REV. 1 (2001) (evaluating church copyright practice in light of theology and historical cases).

law and its sources is important in extracting evidence of the relationship between intellectual property and Islam.

II. THE FRAMEWORK OF LAW IN ISLAM

Islam is a religion of laws in every dimension. Islamic laws address matters ranging from the timing of daily prayers, fasting, and prohibitions against eating certain foods to marriage, inheritance, and commerce.¹¹ Islam is a religion that unites both the spiritual and temporal aspects of life and seeks to regulate not only the individual's relationship to Allah, but human relationships as well.¹² Thus, there is an Islamic law to govern virtually every aspect of a Muslim's life.

The law in Islam may be thought of as being composed of at least two parts: revealed and non-revealed. The revealed form of Sharia has two proper sources: the Qur'an (the holy book) and the Sunna (traditions based on the *hadith*, sayings and actions of the prophet).¹³ Non-revealed sources of Sharia, developed by Muslim jurists after the revelation of the Qur'an and the Sunna, include *ijma* (consensus of Muslim scholars on a point of law) and *qiyas* (a sub-*ijtihad* species of strict analogical reasoning). These are the authoritative sources of jurisprudence (*usul al-fiqh*).¹⁴ *Usul al-fiqh* incorporates both deductive (from broad general principles in the law to a

11. The Qur'an speaks much more explicitly and completely about personal status (marriage and inheritance), morality, and an individual's relationship with Allah (s.w.t) than it does about commerce. For an interesting general discussion of Islamic law, see M. Cherif Bassiouni & Gamal M. Badr, *The Shari'ah: Sources, Interpretation, and Rule-Making*, 1 UCLA J. ISLAMIC & NEAR E. L. 135, 149 (2002). The Qur'an and the Sunna contain the greater number of norms applicable to the areas of criminal law, family law, contracts and obligations, procedure, and inheritance law as compared to other subjects within the *mu'amalat* category—societal relations and individual interactions.

12. Muslims believe that Islam is the last religion. In Islam, unlike the Talmud for Orthodox Judaism or the Bible in Christianity, the Qur'an not only covers moral or spiritual teachings but also every aspect of life. See Hossein Esmaeili, *The Nature and Development of Law in Islam and the Rule of Law Challenge in the Middle East and the Muslim World*, 26 CONN. J. INT'L L. 329, 341–44 (2011). In Islam, a comprehensive body of law sacralizes daily life and connects believers to God. In fact, many scholars maintain that nothing exceeds law's importance in the life of Islam. By contrast, Christianity does not express its faith through a body of law. Christianity's traditional discourse is theology, a reflection on God's nature, not His will. Unlike *Fiqh*, canon law serves an auxiliary function in the life of Christianity; it is facilitative, not constitutive, of the believer's relationship with God. See Mark L. Movsesian, *Fiqh and Canons: Reflections on Islamic and Christian Jurisprudence*, 40 SETON HALL L. REV. 861, 862–63 (2010).

13. The Qur'an is divided into 114 chapters, known as *surahs*. Each *surah* is divided into verses, called *ayas*, which mean "signs"—referring to signs from and of Allah. There are roughly 6,000 verses. See Raj Bhala, *Theological Categories for Special and Differential Treatment*, 50 U. KAN. L. REV. 635, 680 (2002).

14. See W. M. BALLANTYNE & HOWARD L. STOVALL, *ARAB COMMERCIAL LAW: PRINCIPLES AND PERSPECTIVES* 28–30 (2002). See also John Walbridge, *Logic in the Islamic Intellectual Tradition: The Recent Centuries*, 39 ISLAMIC STUD. 55, 68 (2000) ("Islamic law is divided into two disciplines: *fiqh*, which is the content of the sacred law, and *usul al-fiqh*, the principles by which it is deduced. *Usul* is a system of rules by which new law is derived from a fixed body of source materials.").

particular case) and inductive (from a particular case to general principles) methods of reasoning.

Other sources of non-revealed Sharia include *ijtihad* (individual intellectual effort and wider independent reasoning), *istihsan* (equity or juristic preference), *istishab* (presumption of continuity), *istislah* or *maslaha* (opinion based on public interest), *darura* (necessity), *urf* (custom), and *fatwas* (legal pronouncements) given by *muftis* (jurisconsults) such as the Egyptian grand *mufti* Muhammad Abduh.¹⁵

To establish direct support for a legal proposition, a Muslim legal scholar should be able to identify a verse of the Qur'an, or at least a tradition or *hadith* of the Prophet Muhammad (s.a.w). While the Qur'an provides the written law, the Sunna supplies a sort of case law or supplement consistent with the Qur'anic text. The Sunna embodies the application of the Qur'an's written law to concrete disputes and hypothetical questions that arose during the prophet's life. Some Sunna cases simply explain the Qur'anic principles and rules. Some cases interpret the Qur'anic text by providing new insights into the written law. Some provide new principles and rules, supplementing the Qur'an's protected knowledge.

If direct support of a legal proposition in the Qur'an and Sunna is not possible, then a Muslim legal scholar seeks an instance when all legal scholars or jurists agree on a particular point of law or interpretation. Consensus among legal scholars or jurists may be relied upon as a valid source of law.

Another accepted method of legal jurisprudence is use of analogical reasoning, *qiyas*, which is quite narrowly construed. First, one must find a verse in the Qur'an, a Sunna of the prophet, or a rule on which consensus was achieved as the point of departure. Then the narrowly conceived direct cause, purpose, or rationale must be determined. The relationship between the two concerns—the one in which there is a rule and the one to which one

15. *Ijtihad* must not be exercised as to the existence of Allah, the truism of the prophets of Allah, and the authenticity of the Qur'an. To exercise *ijtihad* a Muslim has to be knowledgeable of the Qur'an, Sunna, and *usul al-fiqh*. A Muslim also must be a good Muslim, pious and law-abiding and not influenced by heresy, just, and reliable. One must also be a good Muslim—that is, pious, law-abiding, not influenced by heresy, just, and reliable. See Hasbullah Haji Abdul Rahman, *The Origin and Development of Ijtihad and its Application to Solving Modern Complex Legal Problems*, 16 MUSLIM EDUCATION QUARTERLY 55, 57–58 (1999). A *fatwa* is a nonbinding advisory opinion to an individual questioner (*mustafti*) in connection with ongoing human affairs. A *fatwa* may cover issues concerning mosques, intergenerational transmission of property, marriage of children, and banking operations and interest. *Fatwa* began as a private activity that was independent of any state control before being transformed into a mechanism of religious legitimization. The formulation of *fatwa* is patterned after a question-answer model. Important *muftis* in the pre-modern era were *Mu'adh b. Jabal*, *Ibn 'Abbas*, and *Ibn Rushd*. Modern era *muftis* include *Muhammad Sayyed Tantawi*, grand *mufti* of the Egyptian Republic and head of *Dar al-ifta'*, *Makhluf* (Fatwa Office), *al-Qaradawi*, and *'Abd al-'Aziz b. 'Abd Allah Ibn Baz*. See generally CTR. FOR MIDDLE E. STUD., ISLAMIC LEGAL INTERPRETATION: MUFTIS AND THEIR FATWAS 4–32, 286–96 (Muhammed Khalid Masud et al. eds., 1996) (explaining *muftis*, *fatwas*, and Islamic legal interpretation).

is considering extending the rule—must be elucidated in such a way as to demonstrate that the rule should be extended. For example, the Qur’anic prohibition of drinking wine extends to other alcoholic beverages. But not all analogies are so straightforward. Relaxation of the duty to fast in cases of hardship cannot be easily extended to traveling because a traveler may not always find fasting to be a hardship.¹⁶

All Muslim scholars agree that the Qur’an is the core of Islamic law. However, there is disagreement among scholars about the rank of other sources of Islamic law. Consequently, there have arisen four main schools of law in Sunni Islam: the *Hanafi*, *Maliki*, *Shafi’i*, and *Hanbali*.¹⁷ Hanafi scholars rely on reason and opinion, using analogy and equity as sources of law. The Maliki School requires strict application of the Sunna of the Prophet and minimizes the role of opinion. The Shafi’i School has tried to reconcile the Maliki and Hanafi principles.¹⁸ The Hanbali School is well known for its strict adherence to the text of the Qur’an and the Sunna, yet analogy is recognized as a source of Hanbali law.

The Sharia tries to describe all possible human acts, and to classify them as obligatory, recommended, neutral, objectionable, or forbidden by Allah, the supreme legislator.¹⁹ Prayers and paying *Zakat* (charity) are obligatory actions while making a will is recommended.²⁰ Other actions such as consuming alcohol and eating non-halal food are forbidden.²¹ The Qur’an and other sources of Sharia are silent on some other actions. In this case, these actions are permitted on the ground that everything is permitted unless

16. See Gamal Moursi Badr, *Islamic Law: Its Relation to Other Legal Systems*, 26 AM. J. COMP. L. 187, 189 (1978).

17. See David Bonderman, *Modernization and Changing Perceptions of Islamic Law*, 81 HARV. L. REV. 1169, 1174 (1968). Schools of law in *Sunni* appeared in the first and second centuries of Islam. They developed initially due to geographical separation—for example, one in Medina, one in Kufa, Iraq, and one in Syria. After a few centuries, each school became personalized and took the name of its leading scholar. Each school developed its own body of legal doctrine, but they were similar in broad precepts. They disagreed as to particular points of law. *Id.*

18. See Fatima Akaddaf, *Application of the United Nations Convention on Contracts for the Int’l Sale of Goods (CISG) to Arab Islamic Countries: Is the CISG Compatible with Islamic Law Principles?*, 13 PACE INT’L L. REV. 1, 19 (2001) (citing 2 Current Legal Aspects Of Doing Business in Middle East-Saudi Arabia, Egypt, and Iran (Warren G. Wickersham & Benjamin P. Fishburne eds., Am. Bar Assoc. 1977)) (noting that the Shafi’i School has tried to reconcile the Maliki and Hanafi principles). Al Shafi’i, the founder of al-Shafi’i law school, is known as the founder of Islamic jurisprudence. He was the first jurist to compile and systematize Islamic sources of law. See Mohammad Fadel, *The True, the Good and the Reasonable: The Theological and Ethical Roots of Public Reason in Islamic Law*, 21 CAN. J. L. & JURISPRUDENCE 5, 5 (2008); see also CTR. FOR MIDDLE E. STUD., ISLAMIC LEGAL INTERPRETATION: MUFTIS AND THEIR FATWAS 4–32, 286–96 (Muhammed Khalid Masud et al. eds., 1996).

19. See KNUT S. VIKØR, *BETWEEN GOD AND THE SULTAN: A HISTORY OF ISLAMIC LAW* 36–37 (2005).

20. See Qur’an, 2:43, 149, 180.

21. See Qur’an, 5:3. For meat to be halal, it cannot be of certain types of animals and must be butchered in a certain manner. See Rain Levy Minns, Note, *Food Fights: Redefining the Current Boundaries of the Government’s Positive Obligation to Provide Halal*, 17 J.L. & POL. 713, 717 (2001).

expressly prohibited by Allah. In general, protection of intellectual property is acceptable because of the lack of any express statement(s) in the Qur'an or other Sharia sources against it. Allah's representative among his people, the Caliph, or in more modern terms, the government, is free to act provided the laws enacted do not run afoul of Sharia rules.²² Thus, the Caliph or state can step in and implement a regime protecting intellectual property. The classification of acts into categories proves a degree of flexibility and pragmatism employed by Islamic law.

III. INTELLECTUAL PROPERTY RIGHTS AS CITED IN SHARIA

Islamic law does not regulate intellectual property rights per se by having detailed and precise rules, such as in the case of spiritual duties or inheritance. However, the different sources of law in Sharia contain many rules and examples that help in drawing connections between intellectual property and Islamic law. The following section examines the birth and development of intellectual property norms meeting the needs in Islam and analyzes the arguments for and against providing intellectual property protection under Sharia.

A. Intellectual Property as Extension of Real Property

Muslims believe that all property belongs to Allah²³ (s.w.t).²⁴ The private owner of property acts as a trustee or agent for Allah (s.w.t), the ultimate owner. Nevertheless, Islam cherishes the inviolability of private property. The Qur'an states, "And do not eat up your property among yourselves for vanities, nor use it as bait for the judges, with intent that ye may eat up wrongfully and knowingly a little of (other) people's property."²⁵ Prophet Muhammad (s.a.w) in his farewell pilgrimage said, "No property of a Muslim is lawful to his brother except what he gives him from the goodness of his heart, so do not wrong yourselves."²⁶ Sharia thus takes a middle way between communal property rights and personal rights to property based on Western ideas—English and North American ideas in particular.²⁷

22. Cf. J. N. D. Anderson & N. J. Coulson, *The Moslem Ruler and Contractual Obligations*, 33 N.Y.U. L. REV. 917, 929–31 (1958) (stating that a ruler has discretionary powers to secure the public interest, but that the ruler should exercise this discretion in light of the general principles of the Sharia).

23. "To Allah belongeth whatsoever is in the heavens and on earth." Qur'an 3:129 (Abdullah Yusuf Ali trans.).

24. *Sallallahu alayhi wasallam*, or Peace be Upon Him, is a phrase that Muslims use to indicate reverence and devotion to Allah.

25. Qur'an 2:188 (Abdullah Yusuf Ali trans.).

26. MUHAMMAD AL-GHAZALI, *FIQH-US-SEERAH: UNDERSTANDING THE LIFE OF THE PROPHET MOHAMMAD* 457 (1997).

27. "Confucian ethics places a relatively low value on terms based on individuals and profit, but it does place value on the concept of communal property." Wei Shi, *Cultural Perplexity in Intellectual Property: Is Stealing a Book an Elegant Offense?*, 32 N.C. J. INT'L L. & COM. REG. 1, 8 (2006). In contrast, "[t]he Western concept of property is closely associated with the philosophy

Most schools of law in Sharia recognize intellectual property as a species of property, with the exception of the Hanafi School. This is primarily the result of a disagreement about the proper criterion for what could be considered *mal* (money). According to the Hanafi School, *heiaza* (physical possession) is the only acceptable criterion for money.²⁸ Thus, the Hanafi School concentrates, in absolute terms, first and foremost on material objects as property that can be experienced by one of the five senses. According to the Hanafi School, there can be no legal rights to intellectual property because ideas are incorporeal. On the other hand, the Maliki, Shafi'i, and Hanbali Schools all agree that the proper criterion should be *manfa'a* (usefulness).²⁹ These latter schools accept both tangibles and intangibles as property. Property can be anything that is useful or of value. Thus, except for the Hanafi School, protection of intellectual property would fall into the category of permitted action.

Under Sharia, ownership of real property can be acquired through contractual agreements or by appropriation.³⁰ Under the appropriation right, one may acquire title to vacant real property by developing it and making it productive.³¹ Ownership of personal property can also be acquired through extracting and possessing materials from the earth or public land.³² This resembles Locke's labor theory and the sweat of the brow standard in intellectual property rights.³³ As such, ownership is rewarded to an individual

of natural law originating with the Greek Stoics and later interpreted and codified by Roman philosophers and jurists . . ." *Id.* at 9. By using the term "Western," the author does not exclude West Asia (Arab Asia) and North Africa, which was influenced by the Western heritage and sources. The majority of Arab and Islamic countries in the Middle East were influenced by Western norms. Laws of European origin today form a vital and integral part of the legal systems of most Middle Eastern countries. The pure Sharia in its traditional form was generally confined in the Middle East to the realm of family law. See Khalil 'Athamina, *The Influence of Western Legal Heritage on Islamic Religious Laws in Modern Times*, 20–22, <http://www.qsm.ac.il/mrakez/as-darat/jamiea/9/2—khaleel%20athamneh.pdf> (Dec. 26, 2013).

28. See Muhammad Wohidul Islam, *Al-Mal: The Concept of Property in Islamic Legal Thought*, 14 ARAB L. Q. 361, 363 (1999).

29. *Id.* at 364.

30. See Steven D. Jamar, *The Protection of Intellectual Property under Islamic Law*, 21 CAP. U. L. REV. 1079, 1084 (1992) (providing a detailed explanation of the concept of appropriation by developing vacant property, called *Mawat*).

31. The Prophet Muhammad (s.a.w) said "He who revives dead land in which no Muslim has any rights, acquires it, and no trespasser has a right." TAXATION IN ISLAM 65–68 (A. Beb Shemesh ed., 1967).

32. Jamar, *supra* note 30, at 1084–85.

33. Locke reasoned from the premise that individuals own their own labour, and that mixing labour with a previously unowned resource entitles the individual to own the resulting product. In this way, once upon a time, natural resources originally became subject to private ownership. See Donna M. Byrne, *Locke, Property, and Progressive Taxes*, 78 NEB. L. REV. 700, 703 (1999). The sweat of the brow standard used in justifying intellectual property rights is composed of two related aspects: "[o]ne is that the author is entitled . . . to the value she originates. The other, implicit in the first, is that the author is an originator of value." Abraham Drassinower, *From Distribution to Dialogue: Remarks on the Concept of Balance in Copyright Law*, 34 J. CORP. L. 991, 999–1000 (2009).

who exerts efforts in developing materials—entitling an individual to the fruits of his labor. The Prophet Muhammad (s.a.w) was reported to have said, “Nobody has ever eaten a better meal than that which one has earned by working with one’s own hands. The Prophet of Allah, David used to eat from the earnings of his manual labor.”³⁴ An individual who spends time and energy creating new works—physical or otherwise—should be entitled to their works.

Sharia accepts the concepts of separation of title and third party use.³⁵ These concepts can be construed as to allow a titleholder to divide ownership and use by granting a third party the right to use the property without transferring ownership. Separation of title for property in Sharia parallels the current practice of licensing intellectual property rights.³⁶

Although Sharia does not explicitly protect intellectual property, it may be inferred that the protection of intellectual property is not prohibited. Indeed, there are no express provisions in the basic texts of Sharia that limit ownership to tangible objects. In Sharia, terms such as property can have more than one meaning and one must look beyond classical definitions. Sharia can evolve to accommodate new realities by affording protection to intellectual property.

B. *The Permissibility of Gaining Profits*

Traditionally, intellectual property protection has been about incentivizing innovation and rewarding a person for his labor. The economic incentive theory—the most popular theory—allocates to the authors or inventors the exclusive right to make copies of their works for a limited period of time.³⁷ Intellectual property owners are entitled to fully enjoy the benefits of their creativity. Holders of intellectual property rights may sell their right to others who may value them more. Nevertheless, the economic incentive theory is not the only theory justifying protection of intellectual

34. Sahih Bukhari, Vol. 3, Book 34, No. 276, available at http://www.searchtruth.com/book_display.php?book=34&translator=1&start=0&number=281.

35. See generally Nora El-Bialy & Moamen Gouda, *Can Shari’a Be a Deterrent for Intellectual Property Piracy in Islamic Countries?*, 14 J. WORLD INTELL. PROP. 441, 452 (2011) (explaining generally how intellectual property relates to the Islamic definition of property).

36. See Elizabeth I. Winston, *Why Sell What You Can License? Contracting Around Statutory Protection of Intellectual Property*, 14 GEO. MASON L. REV. 93, 99 (2006); R. Justin Koscher, *A Patent Pool’s White Knight: Individual Licensing Agreements and the Precompetitive Presumption*, 20 DEPAUL J. ART, TECH. & INTELL. PROP. LAW 53, 61, 72 (2009).

37. See Jeanne C. Fromer, *Expressive Incentives in Intellectual Property*, 98 VA. L. REV. 1745, 1746, 1748 (2012) (discussing the dominant American theory of intellectual property); see also William Landes & Richard Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 326 (1989), Daniel McClure, *Trademarks and Competition: The Recent History*, 59 LAW AND CONTEMP. PROBS. 13, 21–22 (1996). A right to exclude in intellectual property is somewhat different from the right to exclude in physical property. If one possesses physical property, no one else can possess it at the same time. In intellectual property, millions of people can possess it and not affect another’s enjoyment of it. See Landes & Posner, *supra* (discussing the “public good” aspect of intellectual property).

property. There is a strong aspect of natural rights in intellectual property as well. A person who labors upon resources that are held in common has a natural property right to the fruits of his efforts.³⁸ The assignment of a patent right to an inventor is based on a presumption that the invention would not have existed at all without the efforts of the inventor. Access to or use of the invention by others is contingent upon the approval of the patent holder.

Intellectual property can also be justified on the basis of trade and making profits. Trade not only involves physical products but also includes trading in intellectual property for the purpose of making profits. Sharia encourages trade, subject to some exceptions.³⁹ Creators should be able to have a tangible return on their investment of time and labor. Making profits does not justify intellectual property per se but allows it. Indeed, making profits is consistent with the economic incentive theory of intellectual property.

The pursuit of profit is not improper; rather it is an honorable matter. The Qur'an states, "It is no crime in you if ye seek the bounty of your Lord."⁴⁰ The Qur'an also states, "O ye who believe! Eat not up your property among yourselves in vanities: But let there be amongst you Traffic and trade by mutual good-will"⁴¹ These verses signify the possibility of generating profits.

By all estimates, many authors during the early Islamic period earned their living through their works. Caliphs would hire authors to write books in return for payments.⁴² Emirs—a title of high office typically translated into English as "prince"—would pay poets who praise them.⁴³ Those payments were legally binding—not an honorarium—for completing an intellectual work in a manner similar to the modern concept of works made for hire.⁴⁴ Dedications have a long tradition as well. Financially needy authors dedicated their works to Emirs or wealthy individuals in the hope of receiv-

38. In the field of intellectual property, facts and concepts seem in some sense to be "held in common" and where labor seems to contribute so importantly to the value of finished products. See generally Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 299 (1988) (discussing the Lockean justification for intellectual property systems).

39. See Qur'an 4:29. There are some moral or religious strictures. The first limitation in Islam is the prohibition of illegitimate goods, those that are *haram* (forbidden) such as pork and alcohol. The other limitation on trade in Islam is *riba* (discussed below). See Qur'an 5:3, 2:219, 2:275-78.

40. Qur'an 2:198 (Abdullah Yusuf Ali trans.).

41. Qur'an 4:29 (Abdullah Yusuf Ali trans.).

42. See Raslan, *supra* note 8, at 499.

43. See JOCELYN SHARLET, PATRONAGE AND POETRY IN THE ISLAMIC WORLD: SOCIAL MOBILITY AND STATUS IN THE MEDIEVAL MIDDLE EAST AND CENTRAL ASIA, 12–13 (2011). Emirs came to use such poets towards propagandistic ends. See *id.*

44. Emirs acquire ownership to the works of authors and poets. *Id.*

ing a monetary gift or reward.⁴⁵ Financial motives were primary in the early Islamic period.

Islam permitted rewards for financial contracts, such as a lease.⁴⁶ Intellectual property contracts include financial elements, and holders of intellectual property rights can recover investments in their creations. However, scholars of the Hanafi School argue that knowledge or science cannot be equated with trade or industry.⁴⁷ A person should dedicate himself to spreading his knowledge without the expectation of financial reward. There should be no obstruction to the duplication of original materials since the most widespread dissemination of knowledge is for the good of all.⁴⁸ In other words, these Hanafi scholars believe that certain kinds of idea-based property should be purely public goods, and knowledge and its products should be used for the benefit of all mankind.

Islam recognizes that creativity does not flourish if a person is not compensated fairly for his efforts. Even the Qur'an, the Sunna, and the unique marks and symbols of faith such as mosque and the greeting of *assalam-u-alaikam* (peace be upon you), together constitute a unique form of intellectual property.⁴⁹ Therefore, the works of individuals ought to be protected and commercially exploited to compensate that individual for his or her labor.

One may ask whether, under Sharia, an author or inventor can recover more than the initial investment on his work. An author or inventor ought to recoup the initial investment made to create the work.⁵⁰ However, in some cases, holders of intellectual property rights could accumulate wealth excessively. This may lead to the issue of *riba* (usury). Under Sharia, gaining

45. The practice of dedications evolved, in time, into that of patronage. *Id.* at 80.

46. Alsadek H. Gait & Andrew C. Worthington, *A Primer on Islamic Finance: Definitions, Sources, Principles and Methods*, 19–20 (U. Wollongong, School of Accounting and Finance, Working Paper No. 07/05, 2007).

47. *Id.* at 94.

48. *Id.*

49. See Ali Khan, *Islam as Intellectual Property “My Lord! Increase me in Knowledge”*, 31 CUMB. L. REV. 631, 632–35, 649–50 (2001). There are differences between the well-known kinds of secular intellectual property rights such as copyrights, patents, and trademarks, and knowledge-based Islam. The former is “the product of human intellect, innovation, and effort.” *Id.* at 635. In contrast, Islamic assets cannot be created by humans. “Intellectual property is often commercial in nature, protected only for a short duration.” *Id.* “Unlike intellectual property, the protected knowledge of Islam is not for sale or commercial exploitation,” and it is timeless. *Id.* The protected knowledge of Islam is universal, free for the benefit of all. *Id.* “Copies of the Quran may be freely made and published without any prior permission and without paying royalties to any person, family, or nation.” *Id.* at 639 n.53. It “has been ‘copyrighted’ in perpetuity as [Allah’s] authentic work . . .” *Id.* “No individual, no family, [and] no nation . . . can claim proprietorship of these assets. . . . In fact, no concept of ownership applies to the knowledge-based assets of Islam, as it does to intellectual property.” *Id.* at 650.

50. “The traditional justification for copyright law, based on law and economics reasoning, relies upon the rationale that a temporary monopoly right is necessary to encourage authorship to ultimately benefit society as a whole.” Alina Ng, *Copyright’s Empire: Why the Law Matters*, 11 MARQ. INTELL. PROP. L. REV. 337, 343 (2007).

profits without exerting efforts over extended periods of time is considered *riba* and is prohibited. The Qur'an states, "Allah hath permitted trade and forbidden usury."⁵¹

The prohibition against *riba* is complicated and tricky to understand. Does *riba* include interest in any form or only usurious interest? The English translation of *riba*, usury, signifies only extortionate interest.⁵² However, *riba* is of two kinds: *riba al-fadl*, in which a person acquires an unlawful, excessive profit, and *riba al-nasi'a*, a form of *gharar*, in which a person gains an unlawful advantage by speculating on uncontrollable risks.⁵³

Although the concept of *riba* generally arises in financial transactions such as loans and derivatives, it can also relate to other monetary transactions.⁵⁴ Hence, profits generated through licensing fees of intellectual property rights may be tantamount to *riba*. So the application of *riba* in the context of intellectual property could prove problematic. Investing money leads to either an increase or decrease in the principal value of the financial capital at stake. In the context of investing, increase is permissible. Under Sharia, what is unacceptable is not increase per se, rather, the moral issue appears in obtaining an increase without exerting effort or being exposed to business risk. Clearly, intellectual property holders invest time and money in producing their works and are thus entitled to reap a financial return.⁵⁵

Some classical Muslim jurists define *riba* broadly to include any increase, however slight, in capital in excess of the original amount.⁵⁶ On the

51. Qur'an 2:275–78 (Abdullah Yusuf Ali trans.).

52. See Abu Umar Faruq Ahmad & M. Kabir Hassan, *Riba and Islamic Banking*, J. OF ISLAMIC ECON., BANKING AND FIN., (2007), at 1, 2, http://ibtra.com/pdf/journal/v3_n1_article1.pdf; see generally Jean-François Seznec, *Ethics, Islamic Banking and the Global Financial Market*, 23 SPG FLETCHER WORLD AFFAIRS 161, 165 (1999) (explaining that the Bible clearly forbids the use of usury in dealing with people).

53. See Barbara L. Seniawski, *Riba Today: Social Equity, the Economy, and Doing Business Under Islamic Law*, 39 COLUM. J. TRANSNAT'L L. 701, 709–11 (2001).

54. See Mahmoud A. El-Gamal, *ISLAMIC FINANCE: LAW, ECONOMICS, AND PRACTICE* 49 (2006).

55. See Anne Layne-Farrar, *An Economic Defense of Flexibility in IPR Licensing: Contracting Around "First Sale" in Multilevel Production Settings*, 51 SANTA CLARA L. REV. 1149, 1153, 1158 (2011). "License fees . . . received for a protected property should be the market determined value. This value should be computed without resort to the 'hold up' of any ex post irreversible investments a licensee or rights purchaser may have made." *Id.* at 1152. "While neither copyright nor patent laws impose limits on what a rights holder can charge a user or licensee, the granted rights should enable the rights holder to earn enough of a financial return so as to provide strong incentives to create and innovate." *Id.* at 1153. "When licensing just one party in the production chain—either the upstream component maker or the downstream assembler—the patent holder will set the royalty rate to maximize total licensing profits." *Id.* at 1158.

56. See Seniawski, *supra* note 53, at 707–20; Haider Ala Hamoudi, *You Say You Want A Revolution: Interpretive Communities and the Origins of Islamic Finance*, 48 VA. J. INT'L L. 249, 263–64 (2008). Sayyid Qutb (1906–1966), a leader of the Muslim Brotherhood in Egypt, explains: "Anyone who extends to me one dinar in order to receive a return of two dinars from me is my enemy; I will not wish him well, nor can I regard him in amity. Mutual support (ta'awwun) is

other hand, modernist jurists define it narrowly to include only excessive interest or doubling.⁵⁷ If the position of classical Muslim jurists is adopted, a holder of intellectual property rights cannot be compensated beyond his initial investment. However, it seems logical and in line with modernist jurists to allow a holder of intellectual property the right to recover an amount that goes beyond his initial investment, as long as that amount is fair and balanced with the time and effort exerted. The holder of intellectual property should be allowed a reasonable return on his investment.

C. Acknowledgement of Moral Rights

Moral rights of authorship are distinct from the bundle of rights that protect economic interests in creative works.⁵⁸ Moral rights consist of four basic rights: right of attribution, right of integrity, right of disclosure, and right of withdrawal.⁵⁹ Economic rights can be transferred or assigned to others in return for royalties.⁶⁰ On the other hand, moral rights cannot be transferred.⁶¹ Moral rights are inalienable and perpetual. In other words, moral rights always remain with the original author of a copyrighted work.

The basis for these rights is the personal linkage between the work and its author. The author has the right to claim/disclaim a work as his own (attribution) and to safeguard the work from distortion, mutilation, and other amendments that would be prejudicial to his or her reputation or honor (integrity).⁶² Based on moral rights, an author should be able to prevent others from passing off his or her work as another's, or block usage of a work that he or she feels will prejudice his or her honor, such as a parody.

one of the fundamental principles of Islamic society, but *riba* destroys this sentiment and weakens its foundations. For this reason does Islam despise *riba*." *Id.* at 283.

57. See Mohammad Nejatullah Siddiqi, *RIBA, BANK INTEREST AND THE RATIONALE OF ITS PROHIBITION* 59 (Islamic Development Bank & Islamic Research and Training Institute, 2004). Some of the modern jurists, like Abduh, Rashid Rida, Shaltut, Sir Syed Ahmed, Fazl al-Rahman, Tantawi and Qardawi have tried to legitimize interest. The modernists proposed a number of legal and non-legal arguments such as the necessity of modern finance, the necessity of efficient allocation of resources, commercial interest not being the *riba* prohibited in Islam, no violation of justice or exploitation these days, and interest rates are not very high, to name but a few. See *id.* at 55–58.

58. See Susan P. Liemer, *On the Origins of Le Droit Moral: How Non-Economic Rights Came to be Protected in French IP Law*, 19 J. INTELL. PROP. L. 65, 68–70 (2011).

59. "[T]he right of attribution allows an author's name to be properly associated with the author's creative work. The right of integrity allows an author to maintain creative control over a work after selling it, so that a new owner can only modify the work with permission from the person who created it. The right of disclosure gives the author exclusive authority to determine when a work is finished and may be disclosed to the public. And conversely, the right of withdrawal allows an author to take a work back, withdrawing it from the world." *Id.* at 70–71.

60. See generally Brian Angelo Lee, *Making Sense of "Moral Rights" in Intellectual Property*, 84 TEMP. L. REV. 71, 88 (2011) (stating that a prohibition on the transferability of moral rights is difficult to reconcile with an economics-based rationale).

61. *Id.* at 82.

62. See Lorie Graham & Stephen McJohn, *Thirty-Two Short Stories About Intellectual Property*, 3 HASTINGS SCI. & TECH. L.J. 1, 19–23 (2010).

Examining pre-Islamic and Islamic history for clues, one can trace early forms of moral rights. In the pre-Islamic era, a poet recited his poems in public and incorporated his signature into his poems, thus claiming ownership of that poem.⁶³ The poems recited in these local public performances would spread through the entire region bearing the name of the original poet.⁶⁴ The process of recitation and mentioning the name of the author constituted a basic form of moral rights. An unauthorized use could have been seen to show disrespect to the poet, and for this reason, might well have led to a public outcry. The process of public recitation in that era is akin to the present-time right of disclosure.

Prophet Muhammad (s.a.w) is reported to have said, “[w]hoso quickens a dead land, it is his, there is no right of expropriation against him.”⁶⁵ This saying reveals that a person has a right to property that he or she develops and that right should be protected. Furthermore, at the Prophet’s time, religious teachings and many of the Prophet’s sayings were transmitted orally, so in order to ensure exactness and authenticity of these sayings they needed to be attributed to the correct source.⁶⁶ Religious teachings and sayings of the Prophet are traced back to the Prophet Muhammad (s.a.w), establishing intermediate links to provide authenticity. The teachings and sayings “had been handed down orally in an unbroken chain, *Isnad*, from witnesses who heard, saw, or knew the Prophet.”⁶⁷ Thus, the *Isnad* determines the veracity of teachings by reflecting any gaps in the chain of transmission.

63. See MUSIC OF A DISTANT DRUM: CLASSICAL ARABIC, PERSIAN, TURKISH, AND HEBREW POEMS 11 (Bernard Lewis trans., Princeton University Press 2001), available at <http://press.princeton.edu/chapters/i7138.pdf>.

64. *Id.*

65. See Siti Mariam Malinumbay S. Salasal, *The Concept of Land Ownership: Islamic Perspective*, 2 BULETIN GEOINFORMASI 285, 297 (1998).

66. See Irshad Abdal-Haqq, *Islamic Law: An Overview of Its Origin and Elements*, 7 J. ISLAMIC L. & CULTURE 27, 47 (2002). “The practices and sayings of Muhammad (pbuh) are commonly called *Hadith* or *Sunnah*. . . . [S]cores of scholars compiled Hadiths of the Prophet over a period of three hundred years using varied methodologies. Concern about the accuracy and authenticity of the Hadiths resulted in the advent of the *sahih* movement (meaning authentic, sound or genuine), between 850 C.E. and 915 C.E., during which time dedicated scholars attempted to authenticate each hadith. From this movement came *The Six Books*, six acclaimed *Hadiths* compiled by recognized scholars of high character. These compilers are: (1) Muhammad bin Ismail bin Al-Mughirah Al-Bukhari (called *Al-Bukhari*); (2) Abu al-Hasan Muslim bin al-Hajjaj (called *Muslim*); (3) Abu Dawud Sulayman bin al-Ashath (known as *Abu Dawud*); (4) Abu Isa Muhammad bin Isa (known as *al-Tirmidhi*); (5) Abu Abd al-Rahman Ahmad bin Shuaib (known as *al-Nasai*); and (6) Ibn Majah Muhammad bin Yazid. Of the six, the first two, Al Bukhari and Muslim, are the most highly regarded and their works are available in English. It took Al Bukhari sixteen years to comb through 600,000 purported hadiths, of which he determined 7,397 to be authentic, and half of those selected are repetitions.” *Id.* at 47–48.

67. Sam Feldman, *Reason and Analogy: A Comparison of Early Islamic and Jewish Legal Institutions*, 2 UCLA J. ISLAMIC & NEAR E. L. 129, 139 (2003).

Any false attribution, especially to the Qur'an or Sunna, is prohibited.⁶⁸ Many teachings were attributed to the Prophet Muhammed (s.a.w). Acknowledging the source of information or the chain of transmitters through which information was handed down through generations is the method Muslims have inherited through the system of *hadith* preservation. Thus, Sharia demands both the right of attribution and the right of integrity whenever a person refers to Sharia.

As these rights of attribution and integrity have been recognized in relation to Sharia itself, the question that arises is whether these rights can be extended to individual authors. Nothing in Sharia prevents extending the right of attribution and right of integrity to individual authors. The *hadiths* imply that Sharia requires source attribution for individual authorship as well. Early Islamic authors did not have legally protected moral rights. No cases are on record in which authors brought legal charges against other parties for violating their ownership rights or falsely claiming authorship of their works. However, interests of Islamic authors were protected by social norms governing ethics and honor. Any information passed must be trustworthy, that is, information should be preserved in the original format and protected from any distortion.

D. Transfer Through Inheritance or Will

Sharia incorporates an elaborate and complex inheritance regime. The property of a deceased person's estate must be distributed according to rules of inheritance specified in the Qur'an.⁶⁹ Prophet Muhammad (s.a.w) is reported to have said, "whoever (among the believers) dies leaving some property, then that property is for his heirs."⁷⁰ However, distribution of intellectual property rights inherited under Sharia may pose problems, especially when dividing these rights under the inheritance rules of the Qur'an.

68. See Robert Platt, *A Comparative Survey of Moral Rights*, 57 J. COPYRIGHT SOC'Y 951, 976 (2010).

69. See Yasir Billoo, *Change and Authority in Islamic Law: The Islamic Law of Inheritance in Modern Muslim States*, 84 U. DET. MERCY L. REV. 637, 646 (2007) ("Two classes of relatives exist under Islamic inheritance law: the inner family and the outer family. The inner family consists of two sub-groups, the Qur'anic Sharers and the Agnatic Residuaries. All other relatives constitute the outer family. Within each group, an order of priorities operates to exclude some relatives at the benefit of others. Specifically, the Qur'anic Sharers take their allotted portions first and the Agnatic Residuaries take, as their title suggests, the residue of the estate, also working under operation of a system of priorities within their sub-group. If no Agnatic Residuaries exist, members of the outer family, in order of the closest such member, take the residue of the estate. There are twelve specific Sharers: the husband, wife, father, true grandfather, mother, true grandmother, daughter, son's daughter, full sister, consanguine sister, uterine brother and uterine sister. The Sharers have a Qur'anic share and their shares cannot be taken away for any reason, unless they themselves agree to give up their share for the benefit of another beneficiary.").

70. Sahih Bukhari, Vol. 3, Book 34, No. 881, available at http://www.searchtruth.com/search/Hadith.php?keyword=abu%20huraira&book=&translator=1&search=1&search_word=&start=880&records_display=10.

Heirs may inherit a decedent's intellectual property rights. For example, if the deceased had a patent licensed to a drug manufacturer, the heirs of the deceased can inherit the license fees according to the Sharia rules of inheritance. Arab countries explicitly allow heirs to exploit economic rights of authorship, no matter the number of authors.⁷¹ If more than one author participated in the work and one of them died without leaving heirs, the deceased author's share in the work reverts to the rest of the contributors equally.⁷² Further, an author's heirs have the exclusive right to make decisions regarding the publication of any work that was not published during the life of the author, unless the author's will directs otherwise.⁷³ In such cases, the will of the deceased must be followed.

The laws of Arab countries do not necessarily conform to Sharia.⁷⁴ For instance, Sharia resolves that where more than one author is involved, the share of the deceased who has no heirs will be transferred to the state. However, in Arab countries, as seen above, shares of the deceased author's joint work will be transferred to his co-contributors where the deceased author has no heirs. The laws of Arab countries should be modified to comply with Sharia rules on this matter.

The author of a work can transfer his work by *wasiyyah* (will). However, under Sharia an author may only allocate by will the rights to one third of the author's works.⁷⁵ The rest of the estate is to be divided according to the Sharia rules of inheritance. The one-third criterion is intended to avoid eliminating heirs from their legal shares in the estate.

Another issue arises in the context of inheritance and wills as to whether moral rights can be transferred. There is a debate among Muslim scholars concerning the moral rights of the deceased author.⁷⁶ Although a Muslim could state in his will that other persons were to inherit the work, this does not mean the author thereby granted them authorial rights to the work. Nevertheless, heirs, especially immediate family members, may have the right to defend the work of the deceased against distortion. The purpose of moral rights is to ensure that the work is correctly associated to the right-

71. See, e.g., Jordanian Copyright Law (No. 22/1992) (as amended by No. 52/2001), art. 21, 22.

72. *Id.*

73. *Id.*

74. See generally RAJ BHALA, UNDERSTANDING ISLAMIC LAW (SHARIA) 1092-93 (2011) (indicating the degree to which certain Arab countries acknowledge Sharia principles regarding inheritance).

75. Zainab Chaudhry, *The Myth of Misogyny: A Reanalysis of Women's Inheritance in Islamic Law*, 61 ALB. L. REV. 511, 528 (1997) (“[W]asiyyah, may be made, but are limited to one-third of the entire estate, and may not be made to those specified heirs who will take under succession.”).

76. The Hanafis consider “physical possession” as the only acceptable criterion for property. See generally Walid Muhaisen, *Sharia's Capacity to Accommodate Modern Intellectual Property Law: An Analysis of Copyright Law in Context* (2011) (unpublished Ph.D. dissertation, University of Leicester) (on file with author).

ful creator and to prevent any alterations of the work by others. It seems logical to grant heirs the right to defend the moral rights of the deceased.

E. *Period of Protection*

Intellectual property laws grant individuals exclusive rights to their creations, allowing them to control further reproduction, commercialization, and distribution of their intellectual products.⁷⁷ This right is subject to a number of limitations that are intended to preserve the public interest. One of these limitations is the duration of protection. All intellectual property laws include provisions limiting the individual's rights to a specific period of time.⁷⁸ Intellectual property rights give the owner a monopoly over a work, whether that work is a major work of literature, a hastily scribbled verse, an invention that requires millions of dollars of investment and years of research, or a simple innovation.⁷⁹ Intellectual property laws attempt to balance the interests of intellectual property holders and society.

Under Islamic jurisprudence, the term of protection for *hekr* (monopoly rights) over *waqf* land (land held under a long-term lease) expires sixty years after the death of the owner.⁸⁰ This term of protection in a monopoly right over *waqf* land can be extended to intellectual property rights—especially copyrights. The period of protection granted by current copyright laws—fifty years *post mortem auctoris* for literary and artistic works—is similar to the maximum period of protection known in Islamic jurisprudence for *waqf* land.

Islamic jurisprudence does not clearly explain whether a divergence between social and private interests is a sufficient condition for limiting

77. See Thomas B. Nachbar, *Monopoly, Mercantilism, and the Politics of Regulation*, 91 VA. L. REV. 1313, 1323–27, 1376 (2005).

78. See Caz McChrystal, *The Dissonant Tune of International Harmonization and the Domestic Duration of Phonorecord Protection*, 3 VAND. J. ENT. & TECH. L. 523, 524 (2006) (“[TRIPS] mandates a minimum duration of protection of fifty years post mortem auctoris . . . for ‘literary and artistic works.’”); see also David S. Abrams, *Did TRIPS Spur Innovation? An Analysis of Patent Duration and Incentives to Innovate*, 157 U. PA. L. REV. 1613, 1614 (2009) (stating that patent protection runs for twenty years from the application date).

79. One of the theories used to justify intellectual property rights is the “reward by monopoly” thesis. Monopolies seek to maximize profits through predatory pricing. Monopolies can exploit people’s need and charge high prices. See K. Kalan, *Property Rights, Individual Rights, and the Viability of Patent Law Systems*, 71 U. COLO. L. REV. 1439, 1446, 1453 (2000); see also Giles S. Rich, *The Relation between Patent Practices and the Anti-Monopoly Laws*, 14 Fed. Cir. B.J. 5, 13–14 (2005) (discussing various legal definitions of “monopoly”).

80. See MINISTRY OF HOUS. AND RECONSTRUCTION, ARAB REPUBLIC OF EGYPT & OFFICE OF HOUSING AGENCY FOR INT’L DEV., U.S., IMPORTANT LAWS AND REGULATIONS REGARDING LAND, HOUSING, AND URBAN DEVELOPMENT IN THE ARAB REPUBLIC OF EGYPT 70–71 (1977), available at http://pdf.usaid.gov/pdf_docs/pnaam203.pdf; see Mostafa Morsi El Araby, *The Role of the State in Managing Urban Land Supply and Prices in Egypt*, 27 HABITAT INT’L 429, 444 (2003); see generally Timur Kuran, *The Provision of Public Goods Under Islamic Law: Origins, Impact, and Limitations of the Waqf System*, 35 LAW & SOC’Y REV. 841, 849 (2001) (explaining that large portions of Middle Eastern countries were controlled by *waqfs* in the nineteenth and early twentieth century).

duration of protection for intellectual property rights. Under Sharia, *haq* (legal rights) are not absolute in nature. Excessive intellectual property protection can act as a monopoly. The Prophet Muhammad (s.a.w) forbade monopolies warning, “[w]hosoever monopolizes is a wrongdoer.”⁸¹ However, no other legal texts defined monopoly, leaving the matter to the juristic efforts of the Prophet’s Companions—those who saw the Prophet and talked with him—and later Muslim scholars. A survey of jurists’ views unveils that an unlawful monopoly includes the withholding of commodities in a way that harms the general public so as to put it in financial hardship.⁸² According to the jurists, the product concerned must be a necessity or a major convenience and financial hardship can mean a significant increase in price.⁸³

Intellectual property rights give innovators a legal monopoly on the use of their products for a certain number of years. Do intellectual property rights result in an unlawful monopoly under Sharia? That may depend upon whether the protected product is a public necessity. If the product is not a necessity and does not supply a major convenience, then the first criterion is missing and that particular monopoly may be permissible under Sharia. However, if the product involved is a necessity, it becomes a closer question. For example, intellectual property rights to the cure for a disease may be an impermissible monopoly. In that case, the government may need to purchase the rights for that product at a fair price and make it available to the public at a reasonable price.

Sharia promotes the concept of *su isti’mal al-haq*, which refers to cases where exercising a right is per se valid and lawful but may cause harm and damage to others. The principle of *maslaha* requires that in a situation where pursuing one interest implies the loss of another, then the greater interest should be pursued in preference to the lesser.⁸⁴ In other words, *maslaha* can apply when two rival interpretations of the sources are possible; in this case, the one most conducive to human welfare is to be chosen. In more complicated situations—which call for new rules that cannot be clearly traced back to any of the sources—a public interest argument is possible on the premise that the basic purpose of legislation in Sharia is to secure the welfare of the people by promoting their benefits or protecting them against harm. The main goals of Sharia are often considered to be the

81. *The Life of Holy Prophet—Education*, MAAREF-FOUNDATION.COM http://www.maaref-foundation.com/english/history/the_life_of_holy_prophet/12_education.htm (last visited Nov. 21, 2013).

82. See ENCYCLOPAEDIA OF ISLAMIC ECONOMICS, Vol. II 97–105 (Abdelhamid Brahimi and Khurshid Ahmad eds., 2009).

83. No classical jurist applied unlawful monopoly to supplements. *Id.* at 101–05.

84. See Mohammad Fadel, *The True, the Good and the Reasonable: The Theological and Ethical Roots of Public Reason in Islamic Law*, 21 CAN. J. L. & JURISPRUDENCE 5, 26, 50–52 (2008).

protection of faith, life, intellect, and wealth.⁸⁵ Sharia requires protection of wealth and people's property from transgression or wrongful appropriation by any party.

Under Sharia, an individual's private property rights are limited when they impose on the rights of others. Basically, *maslaha* is about securing greater public interest. Easing intellectual property protection and distribution of intellectual property products to the public can be the most important objective of an exchange under Sharia. However, the principle of *maslaha* cannot be drawn too broadly as it could open the door to many claims. Some factors have emerged that point towards a more cautious analysis of *maslaha*. For instance: the public interest must be a genuine one, it must be publicly acknowledged, it must not contradict the sources of Sharia, and it must be rationally acceptable.⁸⁶ Presumably, these criteria apply in the context of intellectual property rights. Property rights are the basis for incentives of private economic activity and the starting point for transactions, allowing resources to be shifted to their most valuable use. Because the economics of trade have been gradually shifting from industrial to information economies, the expansion of intellectual property rights is a natural consequence.⁸⁷ It is extremely costly and risky for individuals and companies to develop their products. Thus, some level of intellectual property protection should be provided. A period of protection is necessary to recoup the large upfront costs of developing these products. Nonetheless, intellectual property protection ought to strike the appropriate balance between incentivizing innovation and ensuring availability of less expensive products.

F. Infringement and Remedies

Under Sharia, an "individual's right to property is not only recognized [but] it is considered sacred."⁸⁸ Hanbali jurist Ibn Taimiya considered the protection of property to be the first duty of the state.⁸⁹ "Expropriation is only allowed in two instances. First, in the execution of judgment against a

85. See ASYRAF WAJDI DUSUKI & SAID BOUHERAOUA, THE FRAMEWORK OF MAQASID AL-SHARI'AH (OBJECTIVES OF THE SHARI'AH) AND ITS IMPLICATIONS FOR ISLAMIC FINANCE 3 (Int'l Shari'ah Res. Acad. for Islamic Fin. Research Paper No. 22/2011) (2011), available at http://www.bibd.com.bn/pdf/articles/research_paper22.pdf. Shariah has laid down the main objectives for Sharia. Wealth circulation among the people is necessary either for the purposes of consumption or investment. Moreover, the acquisition of property must be free from any encumbrances and ambiguity in order to avoid disputes among the parties concerned. See *id.* at 18–20.

86. *Id.* at 521.

87. See RUTH L. OKEDIJI, DEVELOPMENT IN THE INFORMATION AGE: ISSUES IN THE REGULATION OF INTELLECTUAL PROPERTY RIGHTS 11–12 (2004).

88. Richard E. Vaughan, *Defining Terms in the Intellectual Property Debate: Are the North and South Arguing Past Each Other when we Say "Property"?* A Lockean, Confucian, and Islamic Comparison, 2 ILSA J. INT'L & COMP. L. 307, 355–56 (1996).

89. *Id.* at 356.

debtor and second, for the purposes of public utility.”⁹⁰ If done for neither of these reasons, the expropriation is a trespass—a sin and a violation of Sharia.

The Qur’an condemns theft of another’s property. The Qur’an states: “And do not consume one another’s wealth unjustly or send it [in bribery] to the rulers in order that [they might aid] you [to] consume a portion of the wealth of the people in sin, while you know [it is unlawful].”⁹¹ The Prophet Muhammad (s.a.w), in the farewell pilgrimage sermon stated, “[n]o property of a Muslim is lawful to his brother except what he gives him from the goodness of his heart, so do not wrong yourselves.”⁹² Property rights, including intellectual property rights, should not be violated.

In addition to evidence derived from the Qur’an and Sunna, a *fatwa* (religious opinion) from Al-Azhar, the most respected Sunni authority among Sunni Muslims, also supports protection of individual property rights. The *Fatwa* Committee of Al-Azhar, in a number of opinions issued in December 1988, clarified that Islam gives an owner the freedom to dispense of the property owned thereby as he wishes; no other person may dispose of, copy, enjoy, use, or attribute such property thereto without the prior consent of the owner, whether for compensation or not.⁹³ In another *fatwa*, the *Fatwa* Committee of Al-Azhar provided that “[c]opying others’ writings and presenting them as one’s own thoughts is a kind of plagiarism that is unlawful both in the Shari’ah and man-made laws.”⁹⁴ As such, holders of intellectual property rights are protected and free to dispose of their rights in the way they see fit as long as it conforms to Sharia.

“Thieves cannot obtain good title, but become trustees of the property and are liable for any damage or loss incurred by the true owner.”⁹⁵ Therefore, stealing property does not affect the owner’s title. Forgery of a creation is considered a wrongful act under Sharia and constitutes a serious crime. Such a crime justifies civil and criminal remedies.

In Sharia, the Islamic term used for the punishment of those who violate people’s rights, is *Uqubat*.⁹⁶ The term *hadd* is limited to the punishment of crimes mentioned in the Qur’an or the Sunna of the Prophet Muhammad (s.a.w). Meanwhile, other punishments are left to the discretion

90. *Id.*

91. Qur’an 2:188 (Sahih International Translation).

92. AL-GHAZALI, *supra* note 26, at 488.

93. See ISLAMIC Fiqh ACADEMY, RESOLUTIONS AND RECOMMENDATIONS OF THE COUNCIL OF ISLAMIC Fiqh ACADEMY 1985–2000, Resolution No. 43, 86–87 (1st ed. 2000).

94. *Islam Forbids the Violation of Copyrights and Laws Regarding Intellectual Property*, THE ISLAMIC WORKPLACE (Sept. 3, 2008), <http://theislamicworkplace.com/2008/09/03/islam-forbids-the-violation-copyright-laws-and-laws-regarding-intellectual-property>.

95. Vaughan, *supra* note 88, at 356.

96. The term “*hadd*” literally means “limit” and is called this because a guilty party has crossed the limit God set in the Qur’an. See BHALA, *supra* note 74, at 1175.

of the *Qadi* (judge), or to rules that are *tazir* (discretionary punishments).⁹⁷ *Tazir* punishments may include imprisonment, a fine, or a combination thereof.⁹⁸ Thus, *tazir* punishments in Sharia are similar to criminal law punishments.

The Qur'an outlines the punishment for theft: "As to the thief, Male or female, cut off his or her hands: a punishment by way of example, from Allah, for their crime: and Allah is Exalted in power."⁹⁹ A question arises as to whether intellectual property theft falls under the Sharia rule of cutting off the hand of a thief. "In order for the *hadd* of theft to be applied, in general, several conditions need to be met. Some of the conditions are related to the individual thief. [The thief] must be sane, adult, and must not have been compelled to commit theft."¹⁰⁰ "Other conditions concern the stolen property, which should be met prior to hand amputation. The stolen property must [have minimum value], . . . [be] in custody, and [be] owned by someone."¹⁰¹ While some of these conditions can be applied to intellectual theft, other conditions, namely having the property in custody, cannot be applied.

Sharia requires that in order for the *hadd* to be applied, the owner should place his or her property in custody of the owner. "Applying this condition to [intellectual property] seems problematic. It is not imaginable that an intellectual creation could be placed in custody as such."¹⁰² The value of any work of intellect derives from the public's recognition of that work.¹⁰³ However, this justification seems unconvincing. A creative work may remain in the custody of the owner and still be protected. For example, copyright protection is granted once works are reduced to writing or other material form.¹⁰⁴ Additionally, a trade secret loses protection if divulged to the public.¹⁰⁵ Under all circumstances, the subject matter of a trade secret must remain a secret.

The more convincing reason for not applying *hadd* to intellectual theft lies in the fact that for the application of this punishment, there should be a clear text in Qur'an or Sunna authorizing it for such a theft. Throughout the

97. *Id.* at 1177.

98. *Id.*

99. Qur'an 5:38 (Abdullah Yusuf Ali trans.).

100. M.A. Naser & W.H. Muhaisen, *Sharia: Intellectual Theft or Intellectual Infringement?*, 4 J. INT'L COM. L. & TECH. 71, 73 (2009).

101. *Id.* The minimum value is considered "an amount equal to the essential needs of a person or family for one year." *Id.* at 73 n.22.

102. *Id.* at 74.

103. *Id.*

104. See L. RAY PATTERSON & STANLEY F. BIRCH JR., *Chapter 3. The 1976 Copyright Act and Its Interpretation*, in A UNIFIED THEORY OF COPYRIGHT, 46 HOUS. L. REV. 259, 265 (2009).

105. A trade secret can be defined as any confidential business information that provides an enterprise with a competitive edge. See Scott M. Kline and Matthew C. Floyd, *Managing Confidential Relationships in Intellectual Property Transactions: Use Restrictions, Residual Knowledge Clauses, and Trade Secrets*, 25 REV. LITIG. 311, 330 (2006).

history of Sharia there was no precedent of applying *hadd* to intellectual theft.¹⁰⁶ Rather, such a theft may fall under *tazir*. Thus, intellectual theft can be subject to criminal penalties such as fines and imprisonment, which are in line with present-day penalties.¹⁰⁷ These penalties seem reasonable in protecting intellectual property rights.

In addition to criminal penalties, the infringer should compensate the property holder for any resulting damages. The Qur'an and Sunna do not include direct texts for allowing damages in intellectual property cases. However, through the general rules of Islamic *Fiqh*, or jurisprudence, one can deduce the necessity of preventing harm and providing compensation for such harm. The Prophet Muhammad (s.a.w.) said, "[t]here should be neither harming nor reciprocating harm."¹⁰⁸ This *hadith* is interpreted to mean "that while engaging in the economic and business activities, a firm is prohibited from inflicting injury or causing grief to others."¹⁰⁹ A close examination of this *hadith* reveals it is not correct for someone to harm another individual, whether that individual has harmed him or not, except if he avenges himself to the extent that justice allows him.

According to an Islamic *Fiqh* rule, harm should be remedied.¹¹⁰ Applying this rule is not as easy as it sounds and a question arises as to how to determine the proper remedy. For example, infringing goods can be destroyed or returned to the legitimate owner. Financial compensation may be more problematic. There is some debate among Muslim scholars as to which specific costs are compensable in this manner. Some stipulate that only actual damages are compensable.¹¹¹ Others permit compensation based not only on actual damages, but also on any additional loss of income

106. See Naser & Muhaisen, *supra* note 100, at 74.

107. See Colin R. Davies, Comment, *Protection Of Intellectual Property—A Myth?: A Consideration of Current Criminal Protection and Law Commission Proposals*, 68 J. CRIM. L. 398, 402 (2004) (explaining that a violator of intellectual property rights can be subject to imprisonment and a fine, and infringing products and instruments can be seized and destroyed); Candace S. Friel, *The High Cost of Global Intellectual Property Theft: An Analysis of Current Trends, the TRIPS Agreement, and Future Approaches to Combat the Problem*, 7 WAKE FOREST INTELL. PROP. L. J. 209, 243 (2007).

108. AN-NAWAWI'S FORTY HADITH 106 (Ezzeddin Ibrahim & Denys Johnson-Davies trans., The Holy Koran Publishing House 9th ed. 1981). This *hadith* is related by Ibn Majah, Malik, and others. *Id.*

109. Abu Umar Faruq Ahmad et. al., *Shari'ah Maxims and Their Implications on Modern Financial Transactions*, 6 J. ISLAMIC ECON. BANKING AND FIN. 75, 96 (2010). According to the scholars of the Arabic language, *ad-darar* refers to the noun and *ad-diraar* refers to the verb. The meaning of "no darar" is that none of you should harm any other with something that they have not used to harm you first. The meaning of "no diraar" is that none of you should harm any other at all. See generally Asifa Quraishi, *Interpreting the Qur'an and the Constitution: Similarities in the Use of Text, Tradition, and Reason in Islamic and American Jurisprudence*, 28 CARDOZO L. REV. 67, 104, 110 (2006).

110. See Sina Ali Muscati, *Late Payment in Islamic Finance*, 6 UCLA J. ISLAMIC & NEAR E. L. 47, 58 (2007).

111. *Id.* at 58.

or profit resulting from infringement.¹¹² In line with Sharia, it seems logical to require a violator of intellectual property rights to pay damages that compensate for only the actual loss. Compensation for loss of income includes opportunity costs and would equal interest, which is prohibited under Sharia.

IV. THE ROLE OF THE ISLAMIC STATE IN PROTECTING INTELLECTUAL PROPERTY

The Prophet Muhammad (s.a.w) and the four Rightly Guided Caliphs (*Al-Rashidin*) who succeeded him regulated trade.¹¹³ The purpose of regulating trade in goods was to protect one's works and prevent unfair trade, deception, or fraud. Over the centuries, a special institution was developed, known as *al-hisba*, to regulate standards and measures of goods to prevent deception for consumers.¹¹⁴ Acts that are misleading as to the true origin of products were considered violations and could be prosecuted.

The *Muhtasib* supervised and inspected the markets, and among their duties was the duty to ensure that traders used correct weights and measures and unaltered goods.¹¹⁵ The *Muhtasib* essentially walked through the markets and streets of Muslim cities to seek out and deter wrongdoing.¹¹⁶ They had the role of "*commanding the good and forbidding the evil.*"¹¹⁷ Books on the duties of the *Muhtasib* dealt with a trade or a profession, what pro-

112. *Id.* at 58–59.

113. The Prophet Muhammad (s.a.w) objected to some cases of deception, known in Islam as *Najsh*, when one raises the prices of goods, in an auction, without the intention of buying. He considered the practice improper. Other examples of objections involved alteration of measure and weight in goods. The Qur'an commands that full measure and weight be given fairly in trade. The Qur'an states: "Woe to those who give less [than due], Who, when they take a measure from people, take in full. But if they give by measure or by weight to them, they cause loss." Qur'an 83:1-3. The Prophet Muhammad (s.a.w) acted in determining the measures upon verse 83:3.

114. The Prophet Muhammad (s.a.w) used to visit the markets to check on business practices, and the Caliphs followed the same practice. As the state expanded, however, it became impossible for them to personally perform their visits. The strict rules in Sharia enjoining fair commercial dealings, combined with the state's expansion, led to the establishment of the *Hisbah* Institution. See Abdul Azim Islahi, *Works On Market Supervision and Shar'iyah Governance (al-hisbah wa al-siyasah al-shar'iyah)* By The Sixteenth Century Scholars (Feb. 28, 2006), http://mpira.ub.uni-muenchen.de/18445/1/MPRA_paper_18445.pdf. However, it should be reiterated that the *Muhtasib's* duties extended well beyond the mere inspection and certification of measures and weights. The *Muhtasib* inspected, as inculcation of a proper belief system, the eradication of *bid'ahs* related to marriages or funerals, the regularity of congregational prayers, maintenance of the mosques, and superintending public moral conduct in daily life. See KRISTEN STILT, *ISLAMIC LAW IN ACTION: AUTHORITY, DISCRETION, AND EVERY DAY EXPERIENCES IN MAMLUK EGYPT* 96–112 (2011).

115. *Muhtasib* is translated in various ways, including market inspector, ombudsman, religious policeman, and morals enforcer, and the responsibilities of one who held the office included all of those duties. See Sadiq Reza, *Islam's Fourth Amendment: Search and Seizure in Islamic Doctrine and Muslim Practice*, 40 GEO. J. INT'L L. 703, 733 (2009).

116. *Id.*

117. Sahih Muslim, Book 24, No. 5293, available at http://www.searchtruth.com/book_display.php?book=024&translator=2&start=0&number=5293.

professionals of a particular trade should do, what they should avoid, and the famous tricks that some of them employed.¹¹⁸ The Muhtasib, therefore, were as much a part of the legal landscape as the better-known figures of judge and *mufti*.

Early Islamic mercantilists used marks to indicate conformity and attribute quality to products.¹¹⁹ The Muhtasib used a seal to stamp on measures, scales, and mints.¹²⁰ Imitating the seal of the Muhtasib was a serious crime. The seal was used by the Muhtasib to indicate a certain quality. This is akin to the current use of trademarks to guarantee quality and source.¹²¹ The Muhtasib used their authority to secure fair trade practices.

Although the role of Muhtasib related more to trade than to property law, the functions of the Muhtasib indirectly protected one's marks. A person could not make copies of a work without the permission of the original author because it was misleading as to the true nature and origin of products and attempted to deceive potential buyers. If the Muhtasib discovered these acts, they would prosecute the violators. At present, Arab countries have several authorities to protect fair dealing in the market and enforce intellectual property laws.¹²² The functions performed by these authorities are comparable to the function performed centuries ago by the Muhtasib.

Besides the role of Muhtasib, Sharia adopted certain formalities to protect creative works and prevent passing off copies as originals. As poems became too complex for a listener to easily grasp them through recitation, so Sharia began encouraging authors to write down their poetry, not only to assist listeners, but also to prevent others from copying the poems. Copying and publication had the effect of preventing distortion of the original work

118. The books are organized around actions taken by the *Muhtasib* in the areas of Muslim devotional and pious practice; crimes and offenses; the management of Christians and Jews; market regulation and consumer protection; the essential bread markets; currency and taxes; and public order. See Abdul Azim Islahi, *supra* note 114; Ayman Shabana, *'Urf and 'Adah Within the Framework of Al-Shatibi's Legal Methodology*, 6 UCLA J. ISLAMIC & NEAR E. L. 87, 95 n.41 (2007).

119. Raewyn Anne Emmett, *The Politics of Knowledge and the Reciprocity Gap in the Governance of Intellectual Property Rights* 152 (2007) (unpublished Ph.D. thesis, University of Waikato) (on file with author).

120. *Id.*

121. See generally Joe Cole, *Trademark Prosecution: Trademark Terms Under the Lanham Act and State Law*, 19 J. CONTEMP. LEGAL ISSUES 70, 74–76 (2010) (discussing the definition of “trademark” in the United States). “Geographical indications, similar to trademarks, are source indicators.” Tunisia L. Staten, *Geographical Indications Protection under the TRIPS Agreement: Uniformity Not Extension*, 87 J. PAT. & TRADEMARK OFF. SOC'Y 221, 223 (2005). “A certification mark is ‘protected like a trademark but is still a distinct kind of mark,’ which indicates to consumers that the goods or services have met certain quality standards or originate from a particular region or were produced.” *Id.* at 236 (quoting Albrecht Conrad, *The Protection of Geographical Indications in the TRIPS Agreement*, 86 TRADEMARK REP. 11, 21 (1996)).

122. These entities include ministries of trade, industry, culture, and health. Further, several Arab countries established the office of the ombudsman. The jurisdiction of the ombudsman is to rectify the excesses of the government functionaries against the public. However, the services delivered by the ombudsman now are just a part of the traditional Muhtasib's functions.

and put the public on notice as to its protected status. The House of Wisdom, *Bayt al-Hikmah*, in Baghdad was one of the well-known houses for authors and scientists to deposit their works.¹²³ A deposit of works allowed authors and scientists to undisputedly claim ownership over their works.

Presently, formalities such as registration of work or deposit in national libraries are not required to grant copyright on a work in places such as the United States and certain Arab countries.¹²⁴ However, countries have continued to attach some benefits to the registration. For instance, the United States and Canada reserved some benefits by making statutory damages and attorney's fees only available for registered works.¹²⁵ Also, registration raises a legal presumption as to existence and ownership of a copyright. In other words, although registration and deposit can be helpful when bringing an action before the court or enforcement proceedings, they are not linked to the existence of copyright itself. Works are protected without the need to register or deposit them with a governmental entity.

V. CHALLENGES

Due to the lack of sophisticated intellectual property rules and doctrines under Sharia, governments of Arab countries stepped in and enacted intellectual property laws that run in conformity with international standards, including the World Trade Organization agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). Nevertheless, these laws are relaxed and tend to not be enforced.¹²⁶ Several Arab countries have been on and off the Special 301 list issued annually by the United States Trade Representative (USTR).¹²⁷ The USTR lists countries that it perceives

123. See generally Asma Afsaruddin, *Muslim Views on Education: Parameters, Purview, and Possibilities*, 44 J. CATH. LEGAL STUD. 143, 146 (2005) (crediting the House of Wisdom as the first academy in the Islamic world and discussing higher institutions of learning as the principal vehicle for transmitting religious education).

124. See generally John Tehranian, *The Emperor has No Copyright: Registration, Cultural Hierarchy, and the Myth of American Copyright Militancy*, 24 BERKELEY TECH. L.J. 1399, 1442 (2009) ("In 1993, Representative William J. Hughes of New Jersey introduced legislation—dubbed the Copyright Reform Act—that, inter alia, repealed the registration requirement for standing, statutory damages, and attorneys' fees. The House ultimately passed the bill on November 20, 1993 and again on September 20, 1994. However, the bill died when the Senate failed to act.").

125. See Jane C. Ginsburg, *The U.S. Experience with Mandatory Copyright Formalities: A Love/Hate Relationship*, 33 COLUM. J.L. & ARTS 311, 339 (2010).

126. See Elizabeth Mirza Al-Dajani, *Post Saddam Restructuring of Intellectual Property Rights in Iraq Through a Case Study of Current Intellectual Property Practices in Lebanon, Egypt, and Jordan*, 6 J. MARSHALL REV. INTEL. PROP. L. 250, 256 (2007) ("Intellectual property piracy runs rampant in the Middle East.").

127. The USTR lists countries that it perceives having problems in enacting and enforcing intellectual property rights. See Robert J. Pechman, *Seeking Multilateral Protection for Intellectual Property: The United States "TRIPS" Over Special 301*, 7 MINN. J. GLOBAL TRADE 179, 196–97 (1998) ("Section 301 of the Trade Act of 1974 is the principal statutory mechanism by which the United States protects U.S. export of goods and services from foreign unfair trade practices As part of the 1984 amendments to section 301, Congress required the executive

having problems in enacting and enforcing intellectual property rights. For instance, Algeria remains on the Priority Watch List because copyright piracy and trademark counterfeiting are widespread.¹²⁸ Also, Egypt, Kuwait, and Lebanon remain on the Watch List for posing several obstacles to effective intellectual property protection and enforcement.¹²⁹ If Sharia recognizes property rights, including intellectual property rights albeit indirectly, the question then arises as to why there are many violations of intellectual property rights in Arab countries. This state of affairs may be due in part to religious beliefs, traditional societal culture, a lower degree of economic development, and higher poverty levels.

Still, some would argue that the Islamic legal system has an entirely different definition of property, one not compatible with intellectual property rights. The Islamic system regards property as communal and owned by Allah (s.w.t.), thus piracy is not considered stealing.¹³⁰ The purpose of creativity and dissemination of knowledge is for the good of all. However, as we have seen earlier, many Muslim jurists have considered intellectual property as species of the general norm of property. Moreover, there have been many instances where Muslims throughout the ages have appreciated protection for their works in one form or another.

Cultural factors also impede effective intellectual property protection. There is a sentiment held by many Arabs that a religiously based law is a necessary bulwark against Westernization and the domination of Western culture.¹³¹ There is also mistrust among Arab countries of the West based on many years of experience, especially during colonialism.¹³² For many centuries Arab countries were well in advance of the Western world.¹³³ The recent events involving the Arab world have served to develop or affirm

branch to produce a report identifying barriers to U.S. exports, including any actions deemed to deny protection for U.S. intellectual property rights.”)

128. See U.S. TRADE REP., 2011 SPECIAL 301 REPORT 27 (2011), available at http://www.ustr.gov/webfm_send/2841.

129. These obstacles include inadequate enforcement efforts, failure to provide additional training for judges who preside over intellectual property matters, judiciary’s failure to impose deterrent penalties against violators, and lack of *ex officio* authority for intellectual property agencies. *Id.* at 34–37.

130. See Simon Buckingham, *In Search of Copyright Protection in the Kingdom*, 11 MIDDLE EAST EXECUTIVE REPORT, May 1988, at 15.

131. See John Cartoll, *Intellectual Property Rights in the Middle East: A Cultural Perspective*, 11 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 555, 573–74 (2001).

132. See *id.* at 588–90; see also Mosad Zineldin & Valaintisna Vasicheva, *A New Mindset to Change the Arab/Islamic-Western Relations for Peace: A Political and Socio-economic Integration Perspective*, 15 J. PEACE, CONFLICT & DEV. 75, 75 (2010) (“Tension has been fuelled by colonialism that denied rights and opportunities to many Muslims and a Cold War in which Muslim majority countries were too often treated as proxies without regard for their own aspirations.”); see generally KENNETH M. SETTON, NORMAN P. ZACOUR & HARRY W. HAZARD, *HISTORY OF THE CRUSADES: THE IMPACT OF THE CRUSADES ON THE NEAR EAST 134–48* (1985).

133. However, the demise of Arab countries’ status began in the eleventh century. See generally BERNARD LEWIS, *THE ARABS IN HISTORY 158–64* (1993) (discussing the decline of the Arab world).

feelings of mistrust.¹³⁴ Therefore, violating intellectual property rights could be seen as a means of revenge to balance the West's conquest of Arab countries, commercially or otherwise. It might be useful for Arab countries to employ strategies that emphasize that the protection of intellectual property can be traced back to concepts found in Sharia and is not, as commonly perceived, a Western phenomenon. In this way, Arab countries may see a reduction in intellectual property violations and witness more public support for protection of intellectual property rights.

Another cultural factor that hampers intellectual property protection in Arab countries lies in the collective nature of Arab culture.¹³⁵ Relationships in Arab countries are based on mutual cooperation and sharing in common.¹³⁶ As such, copying could be normal in a culture where modesty and loving others runs high. The traditional Arab culture tends to encourage open access to knowledge.

A lack of economic development in many Arab countries also impacts protection of intellectual property rights. With the exception of Gulf countries, many Arab countries still lag economically behind the rest of the

134. See generally Norvell B. De Atkine, *The Arab Mind Revisited*, 11 MIDDLE E. Q. 47, 52 (2004) ("As the Western political hold on the Arabs receded, Western cultural influence increased, which in many ways was even more irritating to the Arab elite—particularly in terms of the technology invasion that at every level was a daily reminder of the inability of the Middle East to compete."); see also Douglas Jehl, *A Nation Challenged: The Arab View; Newspapers and TV Paint U.S. Action as a Kind of Terrorism*, N.Y. TIMES (Nov. 11, 2001), <http://www.nytimes.com/2001/11/11/us/nation-challenged-arab-view-newspapers-tv-paint-us-action-kind-terrorism.html> ("Suspicion, mistrust and hostility toward the West is nothing new in the Arab media; it reflects attitudes that permeate a region that sees itself as having been cheated, maligned, outsmarted and outmuscled by Westerners for much of its modern history.").

135. The Arab cultural constructs are said to differ from the Western individualistic culture. See Frederick V. Perry, *Shari'ah, Islamic Law and Arab Business Ethics*, 22 CONN. J. INT'L L. 357, 371–74 (2007) ("When viewing the Arab culture, it is important to understand the difference between group behavior and individual behavior, or what has been termed collectivism versus individualism . . . Individualism, in turn, gives rise to the idea of rights—particularly individual rights being more important than, in fact transcendent over, obligations. Few Americans talk of their obligations; all speak of their rights, and spend a lifetime defending them and clamoring about them. For the Arab, the individual is responsible for the common welfare and for the prosperity of his society. This responsibility is not only to the society but also to God. This gives the individual a feeling of inescapable responsibility.") (internal quotation marks omitted).

136. See generally *id.* at 371–75 ("A sense of communal cooperation, unity and collectivism grew up among the desert Arabs of the Arabian Peninsula . . . Cooperation became a way of life and a community and cultural value for the Arabs . . . Thus, while the Qur'an clearly permits ownership, economic activity and profit, those who profit from economic activity and those who are in possession of property or wealth, [sic] must take into account the interests of society as a whole . . . For Arabs, personal relationships, honor and saving face for all concerned are of high importance, and they often take precedent over the business at hand."); Donald B. Marron & David G. Steel, *Which Countries Protect Intellectual Property? The Case of Software Piracy*, 38 ECON. INQUIRY 159, 159 (2000) (explaining that individualist cultures naturally embrace individual ownership of intellectual property, whereas many non-Western countries have collective cultures that emphasize sharing over individual ownership).

world.¹³⁷ Many Arab economies continue to experience significant problems such as poverty and high unemployment levels.¹³⁸ In terms of intellectual property generation, Arab countries also lag behind the rest of the world. The number of patents registered by Arab authors and inventors in the United States and the European Union is far below that of other countries.¹³⁹ The attitude of people in Arab countries toward intellectual property is not limited to moral issues solely, but is a question of the market. There are different segments of Arab society that would be affected by the high cost of acquiring intellectual property products because intellectual property is based on individual rights and paid access for those who can afford it. To put the argument in terms of currency, if the cost of Microsoft Word were the equivalent of U.S. \$351 in Jordanian currency, how many Jordanians would be able to buy it?¹⁴⁰ Individuals purchase products at prices they can afford.

Due to high prices of intellectual property products, *fatwas* adverse to intellectual property protection have been issued, permitting Muslims to copy such products in limited circumstances.¹⁴¹ According to these *fatwas*,

137. Raj Bhala, *Discovering Great Opportunity in the Midst of Great Crisis: Building International Legal Frameworks for a Higher Standard of Living, Doha Round Betrayals*, 24 EMORY INT'L L. REV. 147, 180 (2010) ("The total value of non-oil exports from Arab countries is less than that of Finland. . . . During the 1990s, the growth rate of exports from Arab countries was 1.5% per year. The average global growth rate was 6%. The export base of Arab countries is not diversified."). In 2011, the GDP per capita of Gulf countries—Bahrain, Oman, Qatar, Kuwait, United Arab Emirates, and Saudi Arabia—combined amounted to U.S. \$1.37 trillion. See Secretariat General, Cooperation Council for the Arab States of the Gulf, *The Cooperation Council for the Arab States of the Gulf* (2004), available at <http://sites.gcc-sg.org/DLibrary/index-eng.php?action=ShowOne&BID=168>.

138. See Michael Fakhri, *Images of the Arab World and Middle East—Debates about Development and Regional Integration*, 28 WIS. INT'L L.J. 391, 398, 412 (2010); Kevin J. Fandl, *Terrorism, Development & Trade: Winning the War on Terror Without the War*, 19 AM. U. INT'L L. REV. 587, 592 (2004) ("[C]urrent economic crisis in the region, marked by severe unemployment and little or no opportunity for the development of competitive and sustainable industries 'unemployment rates [are] running around twenty percent in many of the Arab countries.'").

139. Between 1963 and 2010, Israel registered 20,028 patents in the United States and South Korea registered 78,400 patents in the United States. In that same period, Saudi Arabia led the Arab-Muslim world in registering patents in the United States with 390. Egypt had 132, Kuwait had 132, the United Arab Emirates had 72, Syria had 20, and Jordan had 22. Patent Technology Monitoring Team, U.S. Pat. & Trademark Off., *Patents by Country, State, and Year – Utility Patents (December 2012)*, http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cst_utl.htm (Dec. 26, 2013). Further, between 2003 and 2010, Saudi Arabia registered 92 patents at the European Patent Office, followed by the United Arab Emirates registered at 25, Jordan at 18, and Egypt at 6. Patents Granted, European Patent Office, <http://www.epo.org/about-us/annual-reports-statistics/statistics/granted-patents.html> (Dec. 26, 2013).

140. See Suha Ma'ayeh, *Improved IPR Enforcement Gets Mixed Reviews*, JORDAN TIMES (May 10, 2001) ("Without pirated software, my son could have not excelled in an Auto Cad program which I purchased for [Jordanian Dinar 3],' said one [Jordanian] citizen, adding that the price of the original software is way beyond his reach.").

141. See FATWA ON COPYING OF PROGRAMS, No. 121287, <http://www.islamweb.net/fatwa/index.php?page=showfatwa&lang=A&Id=121287&Option=Fatwald> (last visited Feb. 4, 2014) (in Arabic).

copying of intellectual property products is limited to cases of necessity, personal use, and not for purpose of commercial gain.¹⁴² The limitations imposed by these *fatwas* are similar to the ones used in fair use exemption in copyright.¹⁴³ One solution to the high price problem would be pricing differentiation whereby intellectual property holders enter into agreements to sell their products at discounted prices. This solution seems reasonable, especially if the product is used for educational purposes. The solution would encourage individuals to buy legitimate products at reasonable prices.

In addition to the challenge of intellectual property enforcement, there are challenges related to accommodating new inventions within the framework of intellectual property under Sharia. For example, gene patents raise controversial issues. The biotechnology industry patents genes used for medical and research applications. According to court decisions in the U.S., patenting unique genes and organisms is legal.¹⁴⁴ Thus, in the United States, patents can be awarded for genetically altered genes.

Some Muslim scholars find nothing objectionable about genetic engineering so long as it is only of animals and plants.¹⁴⁵ Other scholars allow therapeutic uses of genetic engineering (for example, gene therapy to cure anemia) while prohibiting use of genetic engineering to enhance a fetus by eliminating an undesirable physical or behavioral trait.¹⁴⁶ Such engineering manipulates life forms—a violation of Sharia. The Qur'an states, "it is He who created all things, and ordered them in due proportions."¹⁴⁷ The Qur'an also states, "Verily, all things have We created in proportion and measure."¹⁴⁸ Genetic engineering should not be used in tampering with the conception of human beings and their individual responsibilities, or inter-

142. *Id.*

143. See David R. Hansen, *A State Law Approach to Preserving Fair Use in Academic Libraries*, 22 *FORDHAM INTELL. PROP. MEDIA & ENT. L.J.* 1, 11 (2011).

144. Nicole Boutros, *Race To the Cure: Why Gene Patents Pave the Way for Breast Cancer Research*, 19 *AM. U. J. GENDER, SOC. POL'Y & L.* 1009, 1014 (2011) ("In 1980, the Supreme Court, in *Diamond v Chakrabarty* . . . [held] that nonnaturally occurring compositions, the products of human ingenuity, are patentable subject matter. The Court upheld the patentability of a combination of bacterium used to break down crude oil, determining that they contained 'markedly different' characteristics from their natural forms and had potentially significant utility. While the Court recognized the implications of its holding, specifically for genetic research, its failure to precisely define 'markedly different' left [future] courts unclear as to its application.").

145. See DARIUSCH ATIGHETCHI, *ISLAMIC BIOETHICS: PROBLEMS AND PERSPECTIVES* 239 (David N. Weisstub et al. eds., 2007) ("Muslim law has no objections to the use of genetic engineering in agriculture and for animals, but calls for an evaluation of the long-term risks on humans, animals and the environment.").

146. See Mohammad Fadel, *Islam and the New Genetics*, 13 *ST. THOMAS L. REV.* 901, 909 (2001). Genetic engineering [has the] potential to improve the health of the species, but the counter-argument is 'that, in time, people would fancy the use of technology for cosmetic enhancement and not merely to correct severe genetic defects.'" *Id.* at 911 n.22 (quoting Aftab J. Ahmed, *Gene Therapy Redux*, 27 *JOURNAL OF THE ISLAMIC MEDICAL ASS'N.* 93, 94 (1995)).

147. Qur'an 25:2 (Abdullah Yusuf Ali trans.).

148. Qur'an 54:49 (Abdullah Yusuf Ali trans.).

fering with the structure of the human genome under the pretext of enhancing the human race.¹⁴⁹ It is immoral to own and sell DNA, which holds the keys to human life.¹⁵⁰ Any attempt to alter life forms is an attempt to change Allah's creation.

Although genetic engineering may enhance human life, individuals do not own their bodies, and thus, can only use their bodies in a manner permitted by Allah. Only Allah "owns" the genes in the human genome and no company can own the genes of an individual. Given the absence of a bright-line demarcating all the issues surrounding genetic engineering, it would be reasonable to adopt a cautious approach, especially where genetic engineering goes beyond therapeutic use.

Application of the TRIPS public order and morality exception could ease the tension between genetic engineering patents and Islamic law. Generally, TRIPS requires that patents shall be available for any inventions and that patent rights are enjoyable without discrimination in the fields of technology. However, a country may exclude an invention from patent protection if prevention of commercial exploitation of that invention in their territory is necessary in order to protect public order or morality.¹⁵¹ TRIPS helps define the derogation of public order and morality by providing a non-exhaustive list of acceptable justifications for excluding an invention from patent protection. These include: protection of human, animal, or plant life; protection of health; and avoidance of serious prejudice to the environment.¹⁵² In light of the preceding, TRIPS provides an escape clause for some Arab countries that find it necessary to refuse to grant genetic engineering patents in order to protect public order or morality.

Patenting stem cell research is considered controversial, especially in the United States and Europe, due to moral issues. What is morally unus-

149. See Shahid Athar, *Enhancement Technologies and the Person: An Islamic View*, 36 J.L. MED. & ETHICS 59, 62–63 (2008) ("In 1998, the Fiqh Council of the Muslim World League made the following resolutions: (1) It reaffirmed the previous resolution banning human cloning. (2) It permitted genetic engineering to prevent or cure diseases or minimize their harm, provided it does not do any other harm during the process. It also suggested that genetic engineering should not be applied to achieve evil or hostile ends of anything that is prohibited by shariah."); see also Stephen J. Werber, *Cloning: A Jewish Law Perspective with a Comparative Study of Other Abrahamic Traditions*, 30 SETON HALL L. REV. 1114, 1158–61 (2000). The Qur'an, in more than fifty places, invites human beings to research, work, and understand the universe and then to draw conclusions that enable them to adopt methods and technology that serve God. An Egyptian legist, Yusuf al-Qaradawi, "maintains that the technology can be used to overcome certain hereditary diseases, such as infertility, as long as it does not lead to abuse in other areas." *Id.* at 1158.

150. See David B. Resnik, *DNA Patents and Human Dignity*, 29 J.L. MED. & ETHICS 152, 152 (2001) ("DNA patenting . . . may threaten human dignity by taking us further down the path of human commodification.").

151. See Timothy G. Ackermann, *Disorderly Loopholes: TRIPS Patent Protection, GATT, and the ECJ*, 32 TEX. INT'L L.J. 489, 508 (1997) ("The favored interpretation of 'necessary' is that the measure used must be the 'least-GATT-inconsistent.' . . . [R]estrictions could be considered to be 'necessary' . . . only if there were no alternative measure consistent with the General Agreement.").

152. *Id.* at 496–97.

tainable is the harvesting of stem cells by destruction of human embryos.¹⁵³ From a Catholic perspective, life commences with conception,¹⁵⁴ and the Jewish law considers life as starting with tissue formation forty days later.¹⁵⁵ In Islamic Law, the Qur'an states:

And certainly did We create man from an extract of clay. Then We placed him as a sperm-drop in a firm lodging. Then We made the sperm-drop into a clinging clot, and We made the clot into a lump [of flesh], and We made [from] the lump, bones, and We covered the bones with flesh; then We developed him into another creation. So blessed is Allah, the best of creators.¹⁵⁶

This verse indicates that a fetus is perceived as a human being only as the biological development progresses because of the Qur'an's use of the words, "then We developed him into another creation."¹⁵⁷ Moreover, according to Muslim scholars, life starts after 120 days of pregnancy have lapsed.¹⁵⁸ Therefore, under Sharia, the issue of patenting stem cell research

153. See Joshua Whitehill, *Patenting Human Embryonic Stem Cells: What is So Immoral?*, 34 BROOK. J. INT'L L. 1045, 1054, 1059 (2009) ("The process of deriving stem cells from the blastocyst typically spells death for the embryo. Because any developing human embryo could ultimately result in the birth of a child, [human embryonic stem cells (hESC)] research has drawn its major opponents from religious groups, whose ethical convictions against hESC research mirror those held by groups against abortion."). While the U.S. Patent and Trademark Office granted relatively quickly the Wisconsin Alumni Research Foundation patent for certain hESC, the European Patent Office (EPO) outright refused to examine the European application on the ground that the invention was contrary to morality. "After years of appeals, the Enlarged Board of Appeal ('Enlarged Board')—the highest level of legal authority in the EPO, responsible for resolving the most important issues of European patent law—ruled on November 25, 2008, that European patent law banned the patenting of ESC inventions whose preparation necessarily involved the destruction of human embryos." *Id.* at 1047–48. There are ethical controversies associated with the harvesting of human eggs and the destruction of human embryos. "[I]n the United States, human and part-human totipotent stem cells are patentable. . . . The fact that . . . Europe and Canada have concluded that human totipotent stem cells are unpatentable on the basis that they are stages of human development demonstrated the difficulty of arriving at a principled rule against patenting human beings." Gregory R. Hagen & Sebastien A. Gittens, *Patenting Part-Human Chimeras, Transgenics and Stem Cells for Transplantation in the United States, Canada, and Europe*, 14 RICH. J.L. & TECH. 11, 57 (2008).

154. See THE EMBRYO: SCIENTIFIC DISCOVERY AND MEDICAL ETHICS 41–42 (Shraga Blazer & Etan Z. Zimmer eds., 2005). According to the Catholic Church, from the time that the ovum is fertilized a life is begun which "is neither that of the father nor the mother; it is rather the life of a new human being." *Id.* at 41 (internal quotation omitted). "[T]he human being is to be respected and treated as a person from the moment of conception." *Id.* at 42 (internal quotation omitted). "The full human nature of the embryo, right from its zygotic stage, is testified by modern genetics, which demonstrated that from the first instant there is established the [program] of what this living being will be." *Id.* (internal quotation omitted).

155. At this stage, after forty days, the embryo has a greater potential of becoming a full and complete human being. *Id.* at 37.

156. Qur'an 23:12-14 (Abdullah Yusuf Ali trans.).

157. Qur'an 23:14 (Abdullah Yusuf Ali trans.).

158. "The embryo does not acquire the legal effects of being human from its very first creation." THE EMBRYO, *supra* note 154, at 58. During the first 120 days of pregnancy, "the embryo is not yet a human being; it belongs to its parents, and they may do with it as they choose." *Id.* at 69. The ensoulment of the fetus does not occur until the end of the 120-day period. See Abdulaziz

is generally considered less problematic. Research, and thus patenting, of stem cells that is conducted on embryos during the 120-day period is permissible since embryos do not yet form human beings.

Finally, Arab countries must adopt a development-focused agenda in their intellectual property laws. Intellectual property laws in Arab countries ought to serve their development and social goals. For example, the limitations provided under the Copyright Law in Jordan are subject to rigid application and determined on a case-by-case basis.¹⁵⁹ The Jordanian Copyright Law permits the performance or display of a work for educational purposes within a classroom or educational institution.¹⁶⁰ The requirement that the performance or display be confined to the classroom is an obstacle to remote students who can only view their lectures using the Internet, as they live in rural areas. In addition, Article 34 of the Jordanian Copyright Law mandates that any person who is interested in printing or publishing a work that has not already been printed, published, or translated in Jordan first needs to apply to the Minister of Culture to obtain a license to do so.¹⁶¹ Such a requirement acts as a barrier by imposing an unnecessary administrative delay and cost on the ability of people to freely and easily use public domain works.¹⁶² Against this backdrop, Arab countries must incorporate into their intellectual property laws a more comprehensive development approach to achieve social welfare and to benefit the most vulnerable populations.

VI. CONCLUSION

Islam is a religion of laws in every dimension. Islam acquired its characteristic as a religion regulating both the spiritual and temporal aspects of life. Therefore, a Muslim must ensure that everything he does is consistent with Sharia. Understanding of the sources of Islam is crucial in deducing the concepts that support protection of intellectual property.

One cannot reduce millennia of reflection under Islamic law to a single formula. However, conceptually, it is fair to state that there is more confluence than conflict in the relationship between Sharia and intellectual property protection—particularly if one takes a long historical perspective. Intellectual property is not alien to the Muslim world. Although there remains a debate among Muslim scholars, intellectual property has been interpreted as a part of private property. Sharia recognizes some basic forms of

Sachedina, *Islamic Perspective on Research with Human Embryonic Stem Cells*, in 3 *ETHICAL ISSUES IN HUMAN STEM CELL RESEARCH: RELIGIOUS PERSPECTIVES*, G-4 (National Bioethics Advisory Commission, 2000).

159. See RAMI OLWAN, *A PRAGMATIC APPROACH TO INTELLECTUAL PROPERTY AND DEVELOPMENT: A CASE STUDY OF THE JORDANIAN COPYRIGHT LAW IN THE INTERNET AGE* 48 (Program on Information Justice & Intell. Prop. Res. Paper No. 2012-07, AM. U. WASH. C. L. 2012).

160. Jordanian Copyright Law (No. 22/1992) (as amended by No. 52/2001), art. 17.

161. *Id.* at 34.

162. *Id.* at 51.

intellectual property rights. Due credit is to be given to the source of the concept. Most Sharia schools of law permit gaining profit out of one's efforts. An author or inventor can recoup his initial investment and more as long as that amount is fair and balanced with the time and effort exerted. Intellectual property protects the right to benefit commercially for a specified period of time. Criminal penalties such as fines and imprisonment are imposed in cases of intellectual theft.

Updated intellectual property laws in compliance with the TRIPS agreement are not a panacea for the challenges of enforcement. Many intellectual property laws enacted by Arab countries remain largely unenforced. Religious beliefs, traditional societal culture, and economic problems contribute to this state of affairs. Some would still argue that property is communal and owned by Allah, thus, sharing intellectual property products is not considered a violation. The purpose of creativity is dissemination of knowledge for the good of all. In addition, some consider violating intellectual property rights as a means of revenge for the West's conquest of Arab countries commercially or otherwise. Another complex fact which hampers intellectual property protection in Arab countries lies in the collective nature of Arab culture. As such, activities such as copying could be normal in a culture where modesty and loving others runs high. It would be difficult to introduce intellectual property concepts into a society with strong community values.

Arab countries can employ strategies that emphasize that the protection of intellectual property can be traced back to concepts found in Sharia and is not, as the common perception seems to be, a Western phenomenon. Intellectual property protection is an internal concept found in Sharia. By adopting this solution, Arab countries may see reduction in intellectual property violations and witness more public support for protection of intellectual property rights.

The question that lingers relates to incorporating new inventions and sophisticated forms of intellectual property—such as gene patents and stem cell research—within the framework of Sharia. Is there a need to reinvent Islam to accommodate such developments? There can be some gray areas when analyzing these new forms of intellectual property rights. The expansion of intellectual property rights and the challenges associated with new technologies and innovations render their justification under Sharia more complicated. However, the best approach is to combine Islamic principles as found in religious texts and other sources of jurisprudence with a reasoning that captures the spirit of the law and modernity. Sharia maintains a dynamic, innovative, and adaptable nature. Some Sharia rules can be expanded to meet modern considerations while retaining core principles as static.