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Can TRIPS Live in Harmony with Islamic Law? An Investigation of the Relationship Between Intellectual Property and Islamic Law

Chad M. Cullen¹

I. INTRODUCTION

Islamic states have become hotbeds for the unauthorized use and duplication of intellectual property in recent years.² This rampant disregard for intellectual property rights in a region dominated by Islamic law suggests that there may be an underlying incompatibility between Islamic law and intellectual property.

This article analyzes the role of intellectual property rights under the Islamic system of law known as Shari'a. It seeks to determine if there is a fundamental incompatibility between Shari'a and the global harmonization of intellectual property through the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). The article engages in both a conceptual analysis based on the tenets of Islamic law and an empirical analysis based on the implementation of TRIPS in Egypt. Egypt was selected for this analysis because it was one of the earliest Islamic states to adopt intellectual property laws, yet Egypt still remains home to a significant amount of infringing activity.

Section II of the article summarizes the four mechanisms available for intellectual property protection and provides a philosophical motivation for intellectual property. The section then continues by showing that intellectual property may be used by governments as a tool for social engineering and shaping economic development.

Section III of the article begins by explaining the pertinent features of Islamic law and concludes by investigating the arguments for and against granting intellectual property rights under Islamic law.

Section IV introduces the TRIPS agreement, explaining its role and function, and outlining several criticisms of the agreement itself. It then ana-

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1. J.D., University of Pennsylvania Law School, 2010; S.M., Harvard University, 2007; B.S.E., Case Western Reserve University, 2005.
 2. See Mohamed R. Hassanien, *Bilateral WTO-Plus Free Trade Agreements in the Middle East: A Case Study of OFTA in the Post-TRIPS Era*, 8 WAKE FOREST INTELL. PROP. L.J. 161, 165–67 (2010) (discussing the prevalence of intellectual property infringement in the Middle East); see, e.g., International Intellectual Property Alliance, 2004 Special 301 Report: Egypt 110, <http://www.iipa.com/rbc/2004/2004SPEC301EGYPT.pdf> (last visited Nov. 3, 2010) (estimating the trade losses caused by piracy in Egypt); International Intellectual Property Alliance, IIPA 2004 “Special 301” Recommendations: Middle East, <http://www.iipa.com/pdf/2004SPEC301USTRHISTORY.pdf> (last visited Nov. 3, 2010) (placing several Islamic states on an copyright piracy watch list).

lyzes both the conceptual and practical conflicts between the TRIPS agreement and the Islamic state.

Section V summarizes the history of intellectual property in Egypt. It then analyzes the effects of the Egyptian government's implementation of a TRIPS-compliant intellectual property system. Finally, the section concludes by discussing the legacy of TRIPS in Egypt and suggesting potential solutions to Egypt's enforcement problems.

Section VI provides a conclusion to the article and restates the article's important points.

II. INTELLECTUAL PROPERTY

This section of the article provides a brief overview of the mechanisms available for intellectual property protection. It then focuses on a philosophical motivation for intellectual property using a labor, or sweat-of-the-brow, theory. Finally, it discusses the motivation for using intellectual property as a tool of social engineering, drawing heavily from the development of the modern Indian patent law.

A. Summary of Intellectual Property

The concept of intellectual property has been around for thousands of years, yet the field continues to evolve rapidly. Modern scholars have separated intellectual property into four distinct categories: trademarks, patents, copyrights, and trade secrets.³ Trademarks serve as source and quality identifiers, and they encourage investment in products marketed under an identifying mark.⁴ Patents serve to encourage and reward innovation by providing inventors with a limited-term right to exclude others from making or using their novel invention.⁵ Copyrights serve to encourage artistic expression by providing a limited-term right to prevent others from copying the artist's expression of an idea in a tangible form.⁶ Trade secrets, while of a different nature and form than other intellectual property rights, protect valuable ideas that an owner wishes to maintain in secrecy.⁷

A philosophical motivation for intellectual property rights can be found in the early works of John Locke.⁸ Locke claims that the labor and effort a man uses to take raw materials from nature and make them his own creates

3. ROBERT P. MERGES ET AL., *Intellectual Property in the New Technological Age* 24–30 (4th rev. ed. 2007).

4. *Id.* at 29–30.

5. *Id.* at 28.

6. *Id.* at 28–29.

7. *Id.* at 24, 28.

8. See JOHN LOCKE, *Two Treatises on Government* 287–302 (Peter Laslett ed., Cambridge Univ. Press 1988) (1690) (outlining a labor theory of property).

an undeniable property right in the product of his endeavor.⁹ Locke's philosophical arguments have come to be known as the sweat-of-the-brow theory of property rights and have provided a strong rationale for intellectual property protection.¹⁰

The development of intellectual property has all of the features which Locke claims entitle a laborer to property rights. Developing intellectual property requires an individual to put forth effort and labor on an idea taken from a common pool of knowledge until his or her work is complete. This labor results in something new that did not exist until the laborer expended his or her time and effort to mold the idea into a work of his or her own. By granting the laborer a property right in the form of intellectual property protection, a government rewards the laborer for his or her hard work and effort.

1. Intellectual Property as a Tool for Social Engineering

In addition to its philosophical motivations, intellectual property may be used as a tool for social engineering. Intellectual property has a unique attribute that separates it from the other, more tangible forms of property: it is a creation of statute alone. Unlike other forms of property, most intellectual property cannot be protected without laws specifically granting intellectual property rights.¹¹ Therefore, the value of intellectual property is almost entirely dependent on a government's particular implementation of intellectual property rights.¹²

In a capitalist market, innovators, artists, and businessmen will seek out high-value endeavors. By carefully selecting appropriate intellectual property laws, a government can use this tendency to drive investment and resources into desired economic sectors and engage in large-scale social

9. *Id.*

10. See, e.g., Abraham Drassinower, *Sweat of the Brow, Creativity, and Authorship: On Originality in Canadian Copyright Law*, 1 U. OTTAWA L. & TECH. J. 105, 108-09 (2004) (discussing the application of the sweat-of-the-brow theory in copyright law).

11. Arguably, trade secrets could be protected without intellectual property laws if their owner is able to maintain complete or contractual control of the underlying information.

12. Some forms of intellectual property will carry residual value even in the absence of intellectual property laws. Being the first to develop a new product or process may provide a valuable competitive advantage that lasts until a competitor is able to duplicate the product or process. Alternatively, trade secrets may retain their value in the absence of intellectual property laws. See *supra* note 10 (discussing protection of trade secrets without intellectual property laws).

engineering. A modern example of this approach can be found in the development of Indian patent law.¹³

The first Indian patent law was enacted in 1856 while India was under British rule. This early patent law and its subsequent amendments lacked a clear policy directed toward the development of an Indian industrial base, instead favoring the continued control by India's British overseers.¹⁴ After India gained its independence in 1947, the Indian government established a series of committees charged with the task of evaluating India's current patent system and recommending reforms to promote industrialization.¹⁵ The last of these committees, the Ayyangar Committee, was formed in 1957 and charged with the specific task of recommending legal reforms to promote industrialization in critical areas like food and drugs.¹⁶ Rather than advocating for a complete repeal of patent rights in these areas, the Ayyangar Committee advised the government to retain *process* patents on food and drugs while eliminating *product* patents on these classes of technology.¹⁷ The Committee explained that completely eliminating patent rights covering innovation in these areas would deny India the benefits of new technologies and, therefore, would not be in the public interest.¹⁸ The Committee felt that this particular arrangement would give Indians access to vital medications by reducing drug costs through increased competition among producers vying for the most efficient synthesis process.¹⁹

In 1970, the Indian government introduced a new patent regime following the recommendations of the Ayyangar Committee.²⁰ The Indian government also enacted compulsory licensing schemes which allowed government-granted compulsory licenses for a patent if the patent-holder did not satisfy the reasonable requirements of the public and offer products produced under the patent at reasonable prices.²¹ In enforcing this statute, the government took the position that the reasonable requirements of the public demanded that the patented invention be worked locally in India.²²

13. See P. NARAYANAN, Patent Law 9–11, 15–24 (Eastern Law House, 2d ed. 1985) (summarizing the birth of the modern Indian patent system); Srividhya Ragavan, *Of the Inequals of the Uruguay Round*, 10 MARQ. INTELL. PROP. L. REV. 273, 278–92 (2006) (discussing the development of the modern Indian patent system and India's transition into TRIPS compliance).

14. Ragavan, *supra* note 13, at 278–79.

15. *Id.* at 279.

16. *Id.* at 281.

17. *Id.* at 285.

18. *Id.*

19. *Id.*

20. *Id.* at 289.

21. *Id.* at 290.

22. *Id.*

Over the next 35 years, the Indian pharmaceutical industry grew dramatically.²³ Companies quickly began manufacturing drugs that had previously been protected under India's antiquated patent laws. Competition became fierce as drug-producers sought to develop and patent more effective synthesis routes. The local working requirement forced the further development of an Indian infrastructure for pharmaceutical production. With the growth in competition and an expansion of local infrastructure, the Indian pharmaceutical industry developed the necessary skills to compete with pharmaceutical manufacturers in the global economy.²⁴ The new patent regime accomplished the government's objective of lowering local medicine costs and creating a thriving infrastructure capable of manufacturing and developing new drugs for sale on the global market. By the time the TRIPS agreement required India to provide full patent protection for both pharmaceutical products and processes in 2005, India had developed the necessary infrastructure and resources to create new drugs and compete with the major pharmaceutical manufacturers.²⁵

The results of the Indian experience show that a government can effectively use intellectual property laws as a means of social engineering. The British used intellectual property laws to stifle Indian development and retain control, but the Indians modified these laws in a way that would dramatically reshape and redevelop the Indian economy. If their language is well-crafted and an ultimate objective remains clear, intellectual property laws can change the nature of a local economy and spark a pattern of growth and value creation that will change the local social fabric for years to come.

III. ISLAMIC LAW

This section of the article first sketches a framework for Islamic law by considering the sources of Shari'a- and non-Shari'a-based laws. It then considers some of the ongoing tension between intellectual property rights and Islamic law by highlighting arguments both for and against such rights in an Islamic legal system.

23. *Id.* at 280 (explaining that 90% of the Indian pharmaceutical industry was formed by foreign manufacturers in 1950); *cf.* Pharmaceutical Drug Manufacturers, Indian Pharmaceutical Industry, <http://www.pharmaceutical-drug-manufacturers.com/pharmaceutical-industry/> (last visited Nov. 3, 2010) (showing that by 2001, over 70% of India's pharmaceutical demand was met by local industry).

24. *See, e.g.,* Manjeet Kripalani, *India: Bigger Pharma*, *BUSINESSWEEK*, Apr. 18, 2005, at 51 (outlining the successful positioning of several Indian pharmaceutical companies).

25. *Id.*

A. Framework of Islamic Law

Many predominantly Muslim countries apply a combination of non-secular (Shari'a-based) law and secular (non-Shari'a-based) law.²⁶ In these countries, the local constitution often holds Shari'a as the primary source of law, allowing for non-Shari'a laws where traditional sources of Islamic law are silent or too vague, making such laws necessary for the effective operation of a modern state.²⁷ Shari'a law itself derives from four proper sources: the Qur'an, the Sunna, Ijma, and Qiyas.²⁸

The Qur'an is the highest law under Shari'a.²⁹ Although the Qur'an is not primarily a legal text, it contains a number of legal provisions and rules that every Muslim must follow. Any rule or provision contained in the Qur'an "cannot be contradicted or even modified by rules derived from any other source."³⁰

The second most important source of Shari'a is the Sunna, or "path," of the prophet Mohammed's life.³¹ The Sunna refers to a collection of recorded sayings, known as the Hadith, that illustrate the established practice and tradition in which the prophet lived.³² These sources of Shari'a complement the Qur'an and often provide useful clarification when the Qur'an appears ambiguous on an issue.³³

If both the Qur'an and the Sunna are silent on a legal issue, Shari'a requires one to look for relevant Ijma.³⁴ Ijma refers to the unanimous agreement or consensus of legal scholars in the Muslim community on a point of law that occurred at a certain point in the past and that ought to occur again in the future.³⁵

When the Qur'an, the Sunna, or Ijma do not provide direct support on a legal issue, Shari'a requires that one look to Qiyas for guidance on the law.³⁶

26. Steven D. Jamar, *The Protection of Intellectual Property Under Islamic Law*, 21 CAP. U. L. REV. 1079, 1080 (1992).

27. *Id.* at 1082.

28. *Id.* at 1080–81.

29. Silvia Beltrametti, *The Legality of Intellectual Property Rights under Islamic Law*, in THE PRAGUE YEARBOOK OF COMPARATIVE LAW 2009 55–94 (T. Mach et al. eds. 2010).

30. Heba A. Raslan, *Shari'a and the Protection of Intellectual Property—the Example of Egypt*, 47 IDEA 497, 506 (2007).

31. See Beltrametti, *supra* note 29.

32. *Id.*

33. *Id.*

34. *Id.*

35. *Id.*

36. Raslan, *supra* note 30, at 509.

Qiyas is a strict form of analogical reasoning³⁷ that can be used to extend a clear or undisputed rule from the Qur'an, the Sunna, or Ijma to a new situation.³⁸ First, one must find a relevant rule.³⁹ Then, one must determine the direct cause or purpose of the rule.⁴⁰ Finally, for the rule to be applied to the new situation, one must elucidate the relationship between the new situation and the events giving rise to the rule, demonstrating that the rule should be applied.⁴¹

Once it has been determined that a relevant rule under Shari'a applies, the appropriate conduct under the rule must then be decided.⁴² There are five types of conduct under Shari'a: mandatory, recommended, permitted, recommended against, and banned.⁴³ For example, mandatory actions include saying prayers and making donations to the poor.⁴⁴ Engaging in commerce is recommended, but charging or collecting interest is banned.⁴⁵ Imbibing alcohol, for example, is strongly discouraged, but not banned.⁴⁶

There are generally three distinguishable areas to consider under Islamic law: (1) areas about which Shari'a has spoken with full voice, such as mandatory duties like prayer or the regulation of marriage; (2) areas where Shari'a has provided merely general principles, leaving many gaps and ambiguities, such as a general requirement to fulfill all contractual obligations; and (3) areas where Shari'a is silent.⁴⁷ The latter two areas provide room for the government to step in and institute the non-Shari'a laws necessary for operations of a modern state.⁴⁸

B. General Tensions between Intellectual Property and Islamic Law

Many scholars believe that intellectual property rights are permitted under Islamic law.⁴⁹ The sources of Shari'a are silent with respect to intel-

37. Jamar, *supra* note 26, at 1081.

38. Raslan, *supra* note 30.

39. Jamar, *supra* note 26, at 1081.

40. *Id.*

41. *Id.*

42. *Id.*

43. Nabil Saleh, *The Law Governing Contracts in Arabia*, 38 INT'L & COMP. L.Q. 761, 780 (1989).

44. Jamar, *supra* note 26, at 1081.

45. *Id.* at 1082.

46. *Id.* at 1081–82.

47. *Id.* at 1082.

48. James N.D. Anderson & Noel J. Coulson, *The Moslem Ruler and Contractual Obligations*, 33 N.Y.U. L. REV. 917, 929–31 (1958).

49. See, e.g., Jamar, *supra* note 26, at 1093 (arguing that Islamic law actually favors protecting intellectual property); Beltrametti, *supra* note 29, at 57 (stating

lectual property, suggesting that exercising intellectual property rights is a permitted activity, which the government may actively regulate.⁵⁰ However, the sources of Shari'a contain many rules and contextual examples which can be insightful in determining the place of intellectual property under Islamic law.

In order to understand the place of intellectual property under Islamic law, it is first necessary to understand the nature of Islamic property rights. Muslims believe that all property belongs to Allah.⁵¹ Islamic law recognizes this belief by granting individuals complete and virtually absolute property rights against all but Allah.⁵² These property rights are virtually inviolable in relations between individuals and even the state.⁵³ In practice, these rights are equivalent to private property rights under western common law.

Under Islamic law, one may acquire real property through standard contractual agreements or by appropriation.⁵⁴ Under the appropriation right, one may acquire title to vacant real property by developing it and making it productive.⁵⁵ Further, one may establish ownership of personal property by extracting and possessing materials from the earth or public land.⁵⁶ Under each of these situations, Islamic law rewards those who have expended some effort to make something new or productive with an ownership right in the fruits of their labor.

Islamic law also allows for a separation of title, possessory interests, and rights to the use of property.⁵⁷ This allows a titleholder—or another with a comparable interest in a property—to divide ownership and use by granting another the right to use the property without transferring ownership.⁵⁸

Each of these aspects of Islamic property law tends to support the concept of intellectual property. Like the quasi-private property rights granted for tangible property, intellectual property rights are complete and virtually absolute during their statutory terms. The Lockean sweat-of-the-brow motivation for intellectual property rights⁵⁹ parallels the concept of appropriation

that “some basic forms of intellectual property rights can hardly be denied a claim under Shari’a”).

50. Jamar, *supra* note 26, at 1082.

51. *Id.* at 1083.

52. Saba Habachy, *Property, Right and Contract in Muslim Law*, 62 COLUM. L. REV. 450, 456 (1962).

53. *Id.* at 454.

54. Raslan, *supra* note 30, at 518.

55. *Id.*

56. Jamar, *supra* note 26, at 1084–85.

57. *Id.* at 1085.

58. *Id.*

59. *See supra* pp. 3–4 (describing the Lockean theory).

under Islamic law, because each theory rewards effort and investment in an endeavor with an ownership interest in the resultant product. Further, the divisibility of ownership and the right to use property comports well with the concept of licensing intellectual property.

Even though intellectual property fits well into the Islamic property framework, intellectual property rights under Islamic law present several issues worth considering. A strict interpretation of Islamic property law insists that the Qur'an and the Sunna refer only to tangible property, and intangible property rights are, at best, implied.⁶⁰ Opponents of Islamic intellectual property rights argue that the absence of express rights in intangible property within both the Qur'an and the Sunna suggests that Islamic law intended protection only for tangible property.⁶¹

Another argument against intellectual property rights stems from the Islamic concept of *gharar*, which forbids any transaction that involves uncertainty or speculative risk.⁶² In theory, this means that all contracting parties must have perfect knowledge of the present and future value of all contractual obligations.⁶³ In practice, an element of risk may avoid the label of *gharar* if the division of risk is decided in advance and the transaction appears fair.⁶⁴ But this can create problems when utilizing some intellectual property rights.

The most prominent problem associated with *gharar* occurs when trying to license or sell trade secrets.⁶⁵ By its nature, the value of trade secrets stems from an information asymmetry between contracting parties. However, *gharar* prevents a party from contracting under asymmetric information. To contract under *gharar*, the trade secret would have to be revealed. Yet a trade secret has no value if both parties have complete information. Although trade secrets may provide a competitive advantage to the entity that develops them, *gharar* creates a paradox which necessarily makes trade secrets unmarketable.

Opponents of intellectual property rights have also invoked the concept of *riba*, which literally means "unjustified increase."⁶⁶ The *riba* concept prohibits the collection of interest and usury and is based on the underlying

60. See Amir H. Khoury, *Ancient and Islamic Source of Intellectual Property Protection in the Middle East: A Focus on Trademarks*, 43 IDEA 151, 172 (2003) (explaining that the Hanafi school of thought takes this view).

61. *Id.*

62. Raslan, *supra* note 30, at 529–30.

63. *Id.* at 530; Beltrametti, *supra* note 29, at 73; Jamar, *supra* note 26, at 1089–1090.

64. Beltrametti, *supra* note 29, at 73–74.

65. See Raslan, *supra* note 30, at 530 (discussing some of the problems associated with contracting to license or sell trade secrets).

66. Beltrametti, *supra* note 29, at 75–76.

belief that wealth needs to be gained through effort and hard work.⁶⁷ Those opposed to intellectual property rights argue that royalty payments from intellectual property licensing agreements are interest payments and should be prohibited as *riba*.⁶⁸ However, proponents of intellectual property laws argue that as long as royalty payments are fair and stem from hard work and effort, intellectual property royalties should be viewed as a fair profit and should not be prohibited as *riba*.⁶⁹

On similar grounds, intellectual property opponents argue that intellectual property rights allow individuals who have put forth minimal effort to accumulate wealth excessively,⁷⁰ a result which is prohibited by the Qur'an.⁷¹ Such an effortless accumulation of wealth creates an imbalance between effort and gains received, which constitutes a form of deceit under Shari'a.⁷²

Although many of the arguments against intellectual property rights have some merit, the majority of Islamic scholars take the position that there is nothing in Shari'a that enjoins or contravenes protecting and enforcing intellectual property rights.⁷³ These scholars urge that Muslims should abide by their contracts and the intellectual property laws applied in their countries.⁷⁴

There are numerous arguments both for and against intellectual property rights under Islamic law. But the nature of Islamic law, with its interconnected web spanning across the realms of faith, government, and economics, does not permit the legality of intellectual property rights to be determined in a vacuum. A government must consider all factors when determining the role of intellectual property in an Islamic state.

67. *Id.*

68. *Id.*

69. *Id.*; Raslan, *supra* note 30, at 532.

70. A concept known as "*mayser*." See Raslan, *supra* note 30, at 528–29 (discussing the Islamic prohibition of *mayser*).

71. *Id.*

72. Beltrametti, *supra* note 29, at 75.

73. See Raslan, *supra* note 30, at 502 (stating that the majority of Islamic scholars have taken the view that Shari'a is compatible with intellectual property); see also MOHAMED HOSSAM LOUTFI, *The Protection of Intellectual Property Rights: The Views of the Pharos, Islamic Jurisprudence and Masters of Poetry and Literature* 232–33 (Peter Lang Europaischer Verlag der Wissenschaften, 2003) (referring to a number of religious fatwas authorizing the protection of intellectual property).

74. See, e.g., Resolutions and Recommendations of the Council of Islamic Fiqh Academy 1985-2000, Resolution No. 43 at 89 (Research and Training Institute 2000) available at <http://www.irtipms.org/OpenSave.asp?pub=73.pdf>.

IV. TRIPS

This section of the article begins by introducing the TRIPS agreement, explaining its role and function in the global economy, and briefly discussing some of the major criticisms associated with TRIPS. It then examines the place of TRIPS in an Islamic state, both in terms of conceptual notions of Shari'a and in terms of its practical application throughout the Islamic states of the world.

A. Role, Function, and Criticism of TRIPS

The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) is an international agreement which sets minimum standards for intellectual property protection in signatory states.⁷⁵ TRIPS was negotiated and finalized at the end of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in 1994.⁷⁶ After the World Trade Organization (WTO) replaced GATT in 1995, the WTO assumed administration over TRIPS.⁷⁷ To encourage states to adopt the requirements of TRIPS, membership in the WTO was made contingent upon compulsory ratification of TRIPS.⁷⁸ Developing countries wishing to join the WTO were given until 2005 to transition into the requirements of TRIPS, while the least developed countries have been given until at least 2016 to comply with TRIPS.⁷⁹

TRIPS was designed to harmonize global intellectual property rights by strengthening protection in countries with traditionally weak or nonexistent intellectual property systems and making it easier to obtain and manage intellectual property protection around the globe. Several requirements of TRIPS have had a major impact on global economic development.

TRIPS requires that patents must be granted in all fields of technology and must be enforceable for a term of at least 20 years.⁸⁰ Further, TRIPS arguably does not allow for compulsory licenses in response to a failure to

75. Agreement on Trade Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations [hereinafter TRIPS].

76. Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy*, at 3 (Sept. 2002) [hereinafter CIPR], available at <http://www.iprcommission.org>.

77. *Id.*

78. *Id.*

79. *Id.*; World Trade Organization, *Intellectual Property: Protection and Enforcement*, http://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm (last visited on Nov. 4, 2010)

80. TRIPS, art. 33.

work the patent locally.⁸¹ These requirements have been criticized as a means of stifling economic growth and preventing proper medical care in developing and least developed countries.⁸² By requiring patents in all fields of technology and eliminating the requirement of local work on the patent, TRIPS severely limits a state's future ability to use intellectual property as a tool of social engineering through the strategic designation of patentable subject matter in target industries which the government wishes to expand. Without this tool, developing and least developed countries that failed or fail to take advantage of the TRIPS transition period may never develop a proper infrastructure and achieve a desirable level of industrialization.

The TRIPS requirements also present a number of important ethical dilemmas. By requiring patents on all fields of technology, signatory states must provide patent protection on various forms of biotechnology ranging from medicines to micro-organisms.⁸³ Many argue that allowing patents on new medicines and genetically modified agricultural plant varieties will lead to increased prices in undeveloped countries, making these goods inaccessible to the majority of the population in these areas.⁸⁴ While such medicines and plants could be used to cure diseases and prevent widespread malnutrition and hunger, patents will limit their availability in the poorest of countries, thus creating a moral conundrum. Furthermore, requiring patent protection for micro-organisms and plants effectively mandates patenting the ultimate element of existence: life. Many cultures agree that life is sacred and strongly disagree with the concept of giving an individual monopoly control over living organisms.⁸⁵ Some cultures might even view this as a form of slavery.

The implementation of TRIPS has faced much criticism from scholars, academics, and leaders of undeveloped nations. A primary criticism is that undeveloped and less developed countries were strong-armed into joining the

81. See Paul Champ & Amir Attaran, *Patent Rights and Local Working Under the WTO TRIPS Agreement: An Analysis of the U.S.-Brazil Patent Dispute*, 27 YALE J. INT'L L. 365, 381-82 (2002) (explaining an argument by the United States that TRIPS forbids nations from granting compulsory licenses for failure to work locally).

82. See, e.g., Risha Gupta, *TRIPS Compliance: Dealing with the Consequences of Drug Patents in India*, 26 Hous. J. INT'L L. 599, 600-01 (2004) (discussing some of the arguments against the expansion of intellectual property rights under TRIPS).

83. TRIPS, art. 27.

84. See Gupta, *supra* note 82, at 600-01 (discussing the threat of broad pharmaceutical patent protection).

85. See, e.g., John Giust, *Comparative Analysis of the United States Patent Law and the New Industrial Property Code of Brazil*, 21 HASTINGS INT'L & COMP. L. REV. 597, 604 (1998) (discussing the Catholic church's fight to obtain exclusions from patentability for life-forms in Brazil).

WTO by the developed nations.⁸⁶ Developed nations such as the United States pushed for the formation of the WTO and had great sway in developing the WTO's level of power and control.⁸⁷ These nations structured the WTO such that non-member states would face harsh import/export restrictions and exceedingly high tariffs when doing business with WTO member states. Such restrictions and tariffs would have prevented many of the poorest and least developed states from importing critical supplies from WTO member states. Faced with the choice between the immediate consequences of not joining the WTO and restrictive intellectual property requirements more than a decade later, many undeveloped and least developed countries had no choice but to join the WTO and ratify TRIPS.⁸⁸

Many critics of TRIPS, the most vocal of which represent the undeveloped and least developed nations, argue that the "harmonization" provided by TRIPS is nothing more than a form of social engineering orchestrated by large multinational corporations to constrain the growth of competition in undeveloped and less developed nations.⁸⁹ By "harmonizing" intellectual property standards around the globe, industries in developed nations will reap the benefits of increased intellectual property protection while preventing undeveloped and less developed nations from developing the necessary infrastructure and level of industrialization needed to compete with developed nations in the global economy.⁹⁰

Critics have further argued that, even if TRIPS is not a protectionist form of social engineering, the intellectual property "harmonization" offered by TRIPS is inappropriate since the nations of the globe are anything but homogeneous.⁹¹ While the variance in scientific and technical capacities between developed countries and undeveloped countries is certainly staggering, the difference in the social and economic structures of these countries is even greater.⁹² These fundamental differences suggest that undeveloped countries

86. See CIPR, *supra* note 76, at 9 (suggesting that developing and least developed nations accepted TRIPS because it was attached to measures expanding access to trade with developed nations).

87. Assemblies of the Member States of WIPO, *The Impact of the International Patent System on Developing Countries: A Study by Getachew Mengistie*, A/39/13 Add. 1, at 18 (October 1, 2003), available at http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=17555

88. CIPR, *supra* note 76, at 9.

89. See Assemblies of the Member States of WIPO, *supra* note 87, at 24 (stating that developing countries are criticizing the international technology transfer system for their technological underdevelopment on the ground that technologies are inaccessible because of crippling patent regimes).

90. *Id.*

91. See CIPR, *supra* note 76, at 2 (discussing the differences of developing and less developed nations).

92. *Id.*

need intellectual property policies tailored to their specific needs and differences, rather than a uniform policy tailored to the needs of developed countries.⁹³

Regardless of the criticism, TRIPS has survived and continues to operate as a doorway for entering the global marketplace through the WTO. The following subsection discusses the role of TRIPS and a governmental approach to dealing with TRIPS's requirements in a nation governed by Islamic law.

B. Tension Between TRIPS and the Islamic State

Many of the traditional arguments against TRIPS have not been voiced adamantly under Shari'a. The issue of patenting living organisms does not seem to conflict with Shari'a, and there has been little, if any, scholarly work on this topic. However, the moral conundrum created by restricting access to patented medicines and various agricultural products creates more of a problem. Although the argument has not been prominently voiced by legal scholars, restricting such access may violate the principle of *Maslaha*,⁹⁴ which requires Muslims to care for and share with those less fortunate or facing hardship. By preventing the sick from using vital medicines or depriving the starving of an efficient and plentiful food source, enforcement of such patent rights stands directly opposed to *Maslaha* and may be considered a violation of Shari'a. This argument is absent in contemporary scholarship, which may indicate that the argument carries little weight in practice.

The Qur'an speaks to the idea of treaties and contracts, stating that, "[f]reedom from obligation from Allah and his messenger toward those of the idolaters with whom ye made a treaty."⁹⁵ The Qur'an also speaks to the importance of fulfilling treaties and contracts: "Excepting those of the idolaters with whom ye have a treaty, and who have since abated nothing of your right nor have supported anyone against you. Fulfill their treaty to them till their term. Lo! Allah loveth those who keep their duty."⁹⁶ Such language expressly contemplates treaties and demands that they be respected under Shari'a, thus binding Islamic states to their treaties with other nations.⁹⁷ This suggests that an Islamic member state of the WTO is under a sacred obligation to uphold the requirements of TRIPS.

The obligation under Shari'a to uphold TRIPS has led many Islamic states to enact intellectual property laws meeting the TRIPS minimum stan-

93. *Id.*

94. See Jamar, *supra* note 26, at 1090–92 (discussing the obligation of *Maslaha* under Shari'a, which requires Muslims to act in the public interest).

95. THE HOLY QUR'AN at 9:1 (Pickthall trans.).

96. *Id.* at 9:4.

97. See Anderson & Coulson, *supra* note 48, at 929 (arguing that an Islamic state is bound to its treaties in the same way that Muslims are bound to contracts under Shari'a); see also Jamar, *supra* note 26, at 1087 (making a similar statement).

dards.⁹⁸ Under these laws, intellectual property is placed in a status equivalent to that of tangible personal property, suggesting that these states agree with the majority belief that intellectual property rights are compatible with Shari'a. Shari'a, therefore, obligates Islamic governments to introduce strong punishment for transgressions against intellectual property.⁹⁹ Thus, by enacting laws in compliance with TRIPS, an Islamic state effectively verifies that it believes intellectual property rights are compatible with Islamic notions and concepts.¹⁰⁰

In practice, however, intellectual property laws have not been well-received in Islamic states. Many Islamic states have stringent intellectual property laws and regulations,¹⁰¹ yet these legal regimes remain ineffective or have enforcement problems.¹⁰² Many scholars question whether this is a governmental choice rather than an inability to enforce intellectual property laws.¹⁰³

Intellectual property rights are often perceived as a Western concept in Islamic states.¹⁰⁴ Due to the West's perceived historical oppression of Muslims during the crusades and colonialism, together with conceptions that Western business practices are immoral and corrupt, this perceived association of intellectual property with the West negatively taints intellectual property laws.¹⁰⁵ By forcing WTO membership and TRIPS upon Islamic states through the threats of import/export restrictions and high tariffs, the perception of intellectual property rights as Western oppression has grown so strong that many Muslims perceive intellectual property infringement not as a legal wrong, but instead as a means of seeking revenge against the West.¹⁰⁶

Empirical evidence appears to support this retribution theory. Pirated software and music from the United States are widely available in Islamic states within local markets.¹⁰⁷ Western texts and media are routinely translated and resold or rebroadcast without copyright-holders' permission.¹⁰⁸ Counterfeiting is so widespread that imitation luxury goods, automobile

98. Beltrametti, *supra* note 29, at 71.

99. Raslan, *supra* note 30, at 557; Hassanien, *supra* note 2, at 167.

100. *Id.*

101. *Id.* at 165–66.

102. *Id.* at 165.

103. Beltrametti, *supra* note 29, at 87.

104. *Id.*; Raslan, *supra* note 30, at 504; John Carroll, *Intellectual Property Rights in the Middle East: A Cultural Perspective*, 11 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 555, 589–90 (2000).

105. Beltrametti, *supra* note 29, at 87; Hassanien, *supra* note 2, at 167.

106. Beltrametti, *supra* note 29, at 88.

107. *Id.*

108. *Id.*

parts, and even pharmaceuticals can easily be found in abundance throughout the Islamic states.¹⁰⁹ Yet evidence suggests that local intellectual property is rarely duplicated illegally,¹¹⁰ indicating an underlying policy of fundamental respect for the work and ideas created within the Islamic community.¹¹¹

Thus, Islamic culture has reacted to TRIPS in a rather unexpected way. TRIPS has resulted in many Islamic states enacting the intellectual property laws desired by the WTO and its developed member states.¹¹² These laws have resulted in a newfound respect for and protection of locally developed intellectual property, as would be expected under Islamic law.¹¹³ But the laws promulgated in compliance with TRIPS have provided little benefit to foreigners whose intellectual property is freely and openly infringed throughout the Islamic states.¹¹⁴

Under the theory that “harmonization” through TRIPS is a form of social engineering, the Islamic states appear to have avoided the protectionist trap set by the developed nations and their large multinational corporations. While the developed countries expected an expansion of their intellectual property rights into the Islamic states, this expansion did not occur because the Islamic states failed to enforce the intellectual property rights of foreigners. And contrary to the desires of the developed nations, the Islamic states actually benefitted from the newly enacted laws. The new intellectual property rights have encouraged local innovation by rewarding inventors and artists for their work.¹¹⁵ With an increased emphasis on innovation and unrestricted access to foreign intellectual property, the local economies will likely expand, creating valuable infrastructure and positioning the Islamic states for further industrialization and eventual competition with the developed countries. Under the protectionist social engineering theory, this is an undesirable and unexpected outcome from the perspective of the developed nations.

109. *Id.*

110. Carroll, *supra* note 104, at 589–91.

111. *See id.* at 593 (explaining that Bahraini gold merchants appear to respect the integrity of local jewelry designs and choose not to copy them).

112. Hassanien, *supra* note 2, at 166.

113. *Id.* at 167; Carroll, *supra* note 104, at 589–91.

114. *See, e.g.,* Hassanien, *supra* note 2, at 166–67 (describing infringing activities in a number of Islamic states including Egypt, Iran, the United Arab Emirates, and Saudi Arabia).

115. *See* Rebecca Baines & Martin Hyden, *Middle East: Why Patenting Now Will Prove Worthwhile*, Oct. 1, 2009, available at <http://www.managingip.com/Article/2311521/Middle-East-Why-patenting-now-will-prove-worthwhile.html> (last visited Nov. 4, 2010) (explaining that the pharmaceutical market in the Middle East has been growing at 10% per year, with the smaller biotechnology sector growing at an even faster pace).

TRIPS also appears to have partially failed in its more noble goal of harmonizing global intellectual property rights by strengthening intellectual property protection and facilitating global intellectual property rights. The lack of enforcement of foreign intellectual property rights in Islamic states has not made it easier for many intellectual property owners to obtain or manage intellectual property protection in Islamic states. While TRIPS may have strengthened intellectual property protection available to local artists and innovators, it has failed to enhance the protection available to foreigners.

Overall, while TRIPS may appear to comport with the concepts and notions of Islamic law, the underlying tensions between developed nations and Islamic states have prevented TRIPS from achieving the results desired by many WTO member states. These problems do not arise from a fundamental conflict with Islamic law, but rather from a turbulent history between two very different cultures.

V. TRIPS, INTELLECTUAL PROPERTY, AND EGYPTIAN POLICY

This section begins with a brief summary of the development of modern intellectual property laws in Egypt. It next describes the effects of TRIPS on intellectual property in Egypt and highlights some of the economic consequences of TRIPS in that nation. Finally, it concludes by addressing the legacy of TRIPS in Egypt and outlining potential methods of improving Egyptian enforcement of intellectual property laws.

A. History of Intellectual Property Laws in Modern Egypt

Before the early twentieth century, Egypt was subjected to numerous invasions and occupations by foreigners.¹¹⁶ These occupiers included the Romans, the Muslims, the French, and, to a lesser extent, the British.¹¹⁷ Egypt achieved its independence from Great Britain on February 22, 1922, and enacted a new constitution the following year.¹¹⁸ Although the new Egyptian Constitution created a hybrid legal system based on Roman civil law with a French flavor,¹¹⁹ it made clear that “Islamic Jurisprudence is the principal source of legislation.”¹²⁰

Egypt was one of the first Islamic states to draft intellectual property legislation with its proposed copyright law in 1927.¹²¹ Although the proposed copyright law was not enacted, Egypt eventually enacted its first intel-

116. JAMES JANKOWSKI, *Egypt: A Short History* 112–13 (2000).

117. *Id.*

118. *Id.*

119. Raslan, *supra* note 30, at 499.

120. THE CONSTITUTION OF THE ARAB REPUBLIC OF EGYPT art. 2 *available at* <http://www.sis.gov.eg>.

121. Raslan, *supra* note 30, at 501.

lectual property law—one covering trademarks—in 1939.¹²² Egypt followed this by enacting a patent law in 1949¹²³ and a copyright law in 1954.¹²⁴ These laws were all loosely modeled on French intellectual property laws.¹²⁵ When these laws were enacted, there was little debate regarding their legality under Shari'a,¹²⁶ suggesting that the Egyptian government believed intellectual property to be compatible with Shari'a.

Egypt joined the WTO in June of 1995 and subsequently ratified the TRIPS agreement.¹²⁷ As an undeveloped nation, Egypt was not required to be in full compliance with TRIPS until 2005, allowing the Egyptian government approximately ten years to make a smooth transition.¹²⁸ In June of 2002, the Egyptian government accelerated Egypt's transition into the TRIPS regime by enacting a new set of intellectual property laws complying with the minimum standards required by TRIPS.¹²⁹ This law created several notable protections: protection of computer programs as copyrights, protection of trade secrets and undisclosed information, protection of plant varieties, and patent protection of pharmaceutical products.¹³⁰

B. Effect of TRIPS on Intellectual Property in Egypt

As an Islamic state, the Egyptian government faced an obligation under Shari'a to comply with the TRIPS agreement.¹³¹ In response to Egypt's obligation under TRIPS, the Egyptian government enacted new intellectual property laws meeting the TRIPS minimum standards in 2002.¹³² Further, Egypt created a full examination system for patents and an automated patent filing

122. *Id.*; see also SAMIHA AL-KALUOUBY, *Industrial Property*, 19 (5th ed., Dar Al-Nahda, 2005).

123. See Jamar, *supra* note 26; see also Patent Law, No. 132 (1949) (Egypt) (noting the date of enactment).

124. See Jamar, *supra* note 26; see also Copyright Law, No. 354 (1954) (Egypt), amended by Copyright Law, No. 34 (1975) (noting the date of enactment).

125. Jamar, *supra* note 26, at 1095.

126. Raslan, *supra* note 30, at 501.

127. World Trade Organization, *Egypt and the WTO*, available at http://www.wto.org/english/thewto_e/countries_e/egypt_e.htm (last visited Nov. 4, 2010).

128. See CIPR, *supra* note 76, at 3 (explaining the TRIPS transition period for developing nations).

129. Raslan, *supra* note 30, at 536.

130. *Id.*

131. See Troy S. Thomas, *Jihad's Captives: Prisoners of War in Islam*, 12 J. LEGAL STUD. 87, 94 (2003) ("[A]s derived from the Shari'a law of contracts, treaty adherence is obligatory for the Muslim nation.").

132. See Raslan, *supra* note 30, at 536.

system to improve the efficiency of the application procedure.¹³³ The Egyptian government also introduced specific provisions on enforcement with an emphasis on conservatory measures, such as the seizure of goods to determine infringement and preserve evidence.¹³⁴ These revitalized laws even led to Egyptian courts issuing injunctions in intellectual property cases, a remedy which had been rarely used in the past.¹³⁵

Following India's example, Egypt had also prepared for TRIPS by using its patent law as a tool for social engineering. Prior to implementing TRIPS-compliant intellectual property protections, the Egyptian patent law allowed for patents on processes, but not on the resulting pharmaceutical products.¹³⁶ Like the Indian experience,¹³⁷ this allowed Egypt to build the necessary infrastructure for producing and developing its own pharmaceutical products in competition with large multinational firms from the developed nations.¹³⁸ By 1999, the Egyptian pharmaceutical market had reached a value of roughly \$1.2 billion, 94% of which consisted of locally produced products.¹³⁹

By the time Egypt implemented the TRIPS minimum standards in 2002, the Egyptian pharmaceutical industry had the expertise and facilities necessary to continue growing through the development of its own pharmaceutical products.¹⁴⁰ As of 2008, the Egyptian pharmaceutical market had nearly doubled in value from its 1999 levels to \$2.3 billion with Egyptian-produced products retaining an approximate 92% market share.¹⁴¹ Thus, careful planning and effective use of intellectual property laws had placed Egypt in a similar position to India as it transitioned into the TRIPS era.

While the Egyptian economy has benefitted from the value created by the new intellectual property system under TRIPS, the implementation and enforcement of these new laws has been troubled by many of the problems commonly found in Islamic states.¹⁴² Enforcement has been difficult due to

133. See Baines & Hyden, *supra* note 115.

134. *Id.*

135. *Id.*

136. See *id.*

137. See *supra* Part II.B.

138. See Baines & Hyden, *supra* note 115.

139. Investia Venture Capital, *Egypt Pharmaceutical Industry June 2006*, at 3 (2006), available at <http://www.investiaco.com/Research/English/pharma.pdf> (last visited on Nov. 4, 2010) (This value assumes an average conversion rate between Egyptian pounds and dollars of about 0.3:1).

140. See Nader Rizkalla, *Egypt—Emerging Pharma Market? Part 1*, EYE FOR PHARMA, (Dec. 17, 2008), <http://social.eyeforpharma.com/story/egypt-emerging-pharma-market-part-1> (last visited Nov. 4, 2010).

141. See *id.*

142. See *infra* Part IV.B (describing many of the problems with intellectual property protection in Islamic states).

the public's lack of knowledge about intellectual property and the government's inexperience in effectively dealing with the new intellectual property rights.¹⁴³ Moreover, the Egyptian legal system is overburdened and ill-equipped to handle an expansion of lengthy intellectual property litigation.¹⁴⁴

Many Egyptians do not see piracy and infringement as wrongs and regularly violate intellectual property laws.¹⁴⁵ Some copyists naively see their actions as a means of spreading knowledge rather than a form of theft.¹⁴⁶ Traders insist that they are performing a public service by offering needed products at more reasonable prices.¹⁴⁷ Many consumers are either unaware that unauthorized copying is illegal¹⁴⁸ or believe infringement to be justified because they cannot afford the price charged by the owner.¹⁴⁹ Some Egyptians even take the extreme position that intellectual property is a tool of Western oppression, openly seeking to infringe Western patents as a form of retribution.¹⁵⁰

In addition to facing an uninformed population, the Egyptian government and its newly formed intellectual property agencies have had little experience in handling the newly protectable forms of intellectual property.¹⁵¹ This experience does not come easily, and it may take many years to develop the proper skills and procedures to address the expanded categories of patent protection and the foreign concept of trade secret.¹⁵² Until such procedures have been developed and proven, enforcement efforts may be inconsistent and fail to achieve the desired results.

The Egyptian legal system itself contributes to the enforcement problems associated with the TRIPS-compliant intellectual property laws. Because enforcement is primarily addressed through Egypt's criminal law, civil recovery requires a showing of criminal infringement.¹⁵³ This higher standard makes it exceedingly difficult to enforce infringement judgments.¹⁵⁴

143. See Baines & Hyden, *supra* note 115.

144. See *id.*

145. See Raslan, *supra* note 30, at 503.

146. See Richard E. Vaughan, *Defining Terms in the Intellectual Property Protection Debate: Are 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, 359 (1996).

147. See *id.*

148. See *id.*

149. See *id.* at 359-60.

150. See Raslan, *supra* note 30, at 504.

151. See Baines & Hyden, *supra* note 115.

152. See *id.*

153. See *id.*

154. See *id.*

Additionally, many court officials have little experience with intellectual property matters and choose to “refer intellectual property matters to a government expert, who will write an opinion and make recommendations to the court.”¹⁵⁵ Most of the time, court officials will “simply affirm the expert’s view.”¹⁵⁶ Due to the limited number of experts however, this procedure can delay judgments for a significant length of time, especially in light of the newly expanded categories of intellectual property protection.¹⁵⁷ Furthermore, this process is “susceptible to corruption,” as the expert can be easily influenced.¹⁵⁸

The Pfizer controversy provides a good example of many of these problems.¹⁵⁹ Shortly after the Egyptian government enacted its TRIPS-compliant intellectual property laws, Pfizer-Egypt was granted a patent on its anti-impotence drug, Viagra.¹⁶⁰ After two months on the market, the Egyptian Ministry of Health had received a number of complaints from local pharmaceutical companies claiming that Egypt’s government was assisting multinational companies as they exploited Egypt’s poor.¹⁶¹ Because the Ministry feared such assistance would be considered a violation of Islamic law, it authorized twelve local companies to produce a generic version of Viagra to sell at a drastically reduced price.¹⁶² This incident highlighted the Egyptian government’s inexperience in enforcing intellectual property laws and demonstrated a situation where the fear of violating Shari’a rendered an intellectual property right valueless.

The implementation of TRIPS in Egypt has been a significant first step in establishing a consistent and stable Egyptian intellectual property regime. The Egyptian government has carefully crafted the proper statutory language and established elements of governmental infrastructure to protect intellectual property rights. But until the Egyptian government becomes serious about enforcing intellectual property rights, the Egyptian intellectual property laws will remain merely words crafted to appease foreign governments and provide an illusion of compliance with TRIPS. Action by the Egyptian government is necessary to show that TRIPS and intellectual property really are compatible with Islamic law in Egypt. A conceptual compatibility with Shari’a means nothing when, in practice, intellectual property rights confer no value upon their owners.

155. *Id.*

156. *Id.*

157. *See id.*

158. *Id.*

159. *See id.* (providing a summary of the Pfizer controversy).

160. *See id.*

161. *See id.*

162. *Id.* (Ministry allowed the local suppliers to sell Viagra at a 95% discount).

C. Legacy of TRIPS in Egypt

Incidents such as the Pfizer controversy combined with the tendency of the Egyptian people to disregard the intellectual property rights of foreigners have caused many “to question Egypt’s commitment to [intellectual property] rights.”¹⁶³ As a result, many multinational corporations have yet to invest in the Egyptian economy. In the long run, this may turn out to be a costly problem for Egypt, as the Egyptian economy loses potential sources of revenue and an influx of local innovators and infrastructure.

While there is still uncertainty about the ultimate effect of global intellectual property harmonization on Egypt’s economic development, there is at least some indication that the intellectual property laws established under TRIPS have generated valuable economic growth in Egypt.¹⁶⁴ If Egypt can further exploit the TRIPS agreement to its benefit, the Egyptian government will have even greater incentive to ensure effective enforcement of Egyptian intellectual property laws.

Regardless of the potential benefits surrounding TRIPS, Shari’a demands that the Egyptian government comply with the obligations imposed by TRIPS.¹⁶⁵ Proper adherence with TRIPS requires Egypt to adopt all measures available and within its capacity to ensure the effective enforcement of the TRIPS provisions.¹⁶⁶ Thus, the Egyptian government must institute a number of changes to improve intellectual property enforcement and to show other WTO members that it is committed to protecting intellectual property rights.

Beyond establishing effective and consistent enforcement procedures and ensuring the integrity and swiftness of Egyptian courts, the Egyptian government must look to the Egyptian people for change. An optimal method to accomplish this change is to educate the Egyptian people on intellectual property.¹⁶⁷ If the Egyptian people understand the economic benefits that come with respecting intellectual property, they may be more willing to accept and respect the intellectual property rights of others, including those of Western artists and innovators.

In Islamic states—such as Egypt—this message can best be delivered through important religious leaders. When these leaders speak, the Egyptian

163. *Id.*

164. *See supra* Part V.B (showing that Egypt was able to effectively use patent laws to build the infrastructure for a globally competitive pharmaceutical industry).

165. *See supra* Part IV.B (suggesting that the Qur’an obligates Islamic states to fully comply with all requirements of their treaties with other nations).

166. *See Hassanien, supra* note 2, at 167.

167. *See Beltrametti, supra* note 29 (explaining that education is a viable means to change public perception about intellectual property).

people listen.¹⁶⁸ If Egyptians truly believe that violating intellectual property rights imposed by the government defies Shari'a their behavior will change, and the Egyptian government will slowly accomplish its obligations under TRIPS.

The ultimate legacy of TRIPS in Egypt remains unknown. The new system of intellectual property in Egypt has shown some signs of improving the Egyptian economy. It has helped spur local innovation and create local value. But if the Egyptian government takes the action arguably demanded by Shari'a and begins actively and consistently enforcing the intellectual property rights of foreigners, it is difficult to predict the effects on the Egyptian economy and the Egyptian people. Egyptian development in some sectors may be harmed as prices increase and Egyptian firms are shut out, yet it also may enable foreigners to bring jobs and infrastructure into Egypt, pushing Egypt into the developed world as a player in the global economy.

VI. CONCLUSION

Conceptually, there appears to be little conflict between Islamic law and intellectual property. While there has been some debate, the majority of scholars and government leaders appear to take the view that intellectual property rights have a place under Shari'a. The enactment of intellectual property laws in a number of Islamic states, including Egypt, provides empirical evidence of this conceptual compatibility.

Further, Shari'a requires Islamic states to respect and uphold all treaties with foreign nations. As a result, those Islamic nations that have joined the WTO and ratified TRIPS—implicitly affirming the compatibility between Shari'a and intellectual property—have an obligation to enact and actively enforce the minimum standards for intellectual property protection that TRIPS requires.

However, the practical nature of the compatibility between intellectual property and Shari'a appears to be less than certain. While a number of Islamic states have enacted intellectual property laws in compliance with the TRIPS agreement, these laws have remained largely unenforced by local governments. This lack of enforcement results from a combination of government inexperience and inefficiency, and a public perception that there is nothing wrong with infringing the intellectual property of foreigners. This public tendency to infringe foreign intellectual property has largely been viewed as a response to the pervasive belief that intellectual property is a means of Western oppression. Further, this retribution theory is verified by

168. *See id.* (stating that some religious leaders have already made statements concerning intellectual property laws that have lead to reduced infringement in certain areas); *see also* Raslan, *supra* note 30, at 503 (telling a story of an Egyptian business executive who, after learning of a fatwa prohibiting the violation of software copyright, asked Microsoft to review the software at his firm and remove any illegal copies).

the observation that there has traditionally been little infringement of local Islamic intellectual property.

Egypt provides an illustrative example of this disconnect between the conceptual compatibility of intellectual property under Shari'a and practical reality. The Egyptian experience demonstrates the Islamic state's willingness to enact intellectual property laws in accordance with its obligation under TRIPS. Yet it also shows the Egyptian unwillingness to carry through on these obligations by actively and consistently enforcing these intellectual property laws.

One solution to this practical incompatibility between the Islamic state and intellectual property is to educate the people on the economic benefits of intellectual property rights and their use as a tool for promoting the growth of infrastructure and industrialization. If the public is properly educated on the benefits of intellectual property and if they understand that intellectual property is compatible with Shari'a, intellectual property will gain support within Islamic states like Egypt. Thus, with the proper education, the conceptual compatibility of intellectual property with Shari'a may eventually become a practical reality within the Islamic states.