Optimising The Utilisation Of Information And Technology Under Intellectual Property Regime – An Indonesian Perspective

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Abstract

This work aims to re-examine the (existence of) an exclusive right in optimising the production and dissemination of information and technology under an intellectual property regime. To illustrate the idea, this paper identifies and maps some substantial issues, which are classified, into: (i) symptoms, (ii) core problem, and (iii) root causes. This paper offers an Indonesian perspective in empowering society to appropriately access information and technology. In conclusion, this paper emphasises the importance of *Pancasila* as the grand norm, which contains various crystallised Indonesian values that are linked to and correspond to universal values, such as "unity" (*keutuhan*), "balance" (*keseimbangan*), "harmonisation" (*keserasian*, *keselarasan*), and "sustainability" (*keberlanjutan*), in optimising the production and dissemination of the intellectual products. Those values can be designed to entrench and control a balanced implementation between exclusive rights, social function, and public interest towards a strong and ideal legal framework in optimising information and technology for the greatest benefit of the people.

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1. Introduction

Disparities, difficulties and conflicts of interest in optimising (access and distribution) information and technology (hereinafter IT) indicate the tragedy of anti-commons[1] that may threaten the sustainability of human life. From time to time, the issues concerning the optimisation and utilisation of intellectual products become crucial problems; they are now becoming some of the hottest issues in public discourse, particularly in developing countries. Recently, they have comprised the core issues with respect to the discussion at WIPO meetings, relating to the Geneva Declaration or the Development Agenda.[2] Seemingly, they are likely to remain unfinished on the world agenda. Indeed, these problems do not exist in isolation. They are interdependent with other related complex problems in the field of sociology, economics, politics, and culture. In the context of the distribution of intellectual products, the weakest link may refer to the exploitation of exclusive rights in an intellectual property regime (IP regime).

Admittedly, the exclusive right is principally aimed at protecting the interests of the individual (creator or inventor) who actualises his existence and potential. To a certain extent, the exclusive right given to authors or inventors may stimulate the production and dissemination of creativity and productivity (literary, artistic, scientific and technological works) under free-market conditions, as well as promoting certain cultural policies.[3] However, in practice, the ideal goal and rationales have been manipulated by a few gigantic corporations. They tend to use and exploit exclusive rights to accumulate their interest. At a time when millions of people are deprived of basic rights to health, food and education, and where inequality is increasing, this question challenges the role of law – intellectual property law – in bridging the gap. One effort that can be used to bridge the gap is a reinterpretation of the exclusive-right principle in an IP regime.

To this end, it is relevant to explore an ideal alternative approach in bridging the right to profit and public interest – in this case, how to transform the

1 *See* Heller, M.A., "The Tragedy of the Anticommons: Property in the Transition from Marx to Markets", 111 Harv. L. Rev. 3 (1998). *See also* David, P.A., "A Tragedy of the Public Knowledge 'Commons'? Global Science, Intellectual Property, and the Digital Technology Boomerang", SIEPR Discussion Paper No. 00-02, (Stanford Institute for Economic Policy Research, Stanford University, 2000); Onsrud, H.J., "The Tragedy of the Information Commons", in: "Policy Issues Modern Cartography" 141–158 (Elsevier Science). More generally, one can understand anti-commons property as the mirror image of commons property. *See* Hardin, G., "The Tragedy of the Commons", 1968 Science 162.

2 *See* Sanders, A.K., "The Development Agenda for Intellectual Property: Rational Humane Policy" or "Modern-Day Communism", at 5, Inaugural Lecture, Delivered on the Occasion of the Acceptance of the Chair of European and International Intellectual Property Law, University of Maastricht, (2005).

3 *See* Grosheide, F.W., "Crossing Borders: Convergence in the Fields of IPRs", in: "Ninth Annual Conference on International Intellectual Property Law and Policy" 3 (Fordham University School of Law, 2001).

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exclusive right to the greatest benefit of the people. This paper will re-examine and elaborate the existence and the implication of exclusive rights in developing countries, particularly in Indonesia. In re-examining and elaborating the exclusive rights principle, I will introduce an Indonesian perspective and employ an ideological and paradigmatic view from *Pancasila* as the grand norm in Indonesia.

2. *Mapping the Problems in Optimising Information and Technology*

The implementation of an absolute exclusive-right principle in the inventor and creator doctrine by a few gigantic corporations had raised some complex problems. The main issue in these problems is clustered around tension between the right to profit and the right to life. In order to map the anatomy of these problems, this work classifies them into three levels: (i) symptoms, (ii) core problem, and (iii) root causes.

Firstly, symptoms are usually considered as undesired effects. These symptoms appear at the surface. Commonly, they can be seen as impacts that have emerged from the implementation of the IP regime that embodies the exclusive rights principle without an ideal legal framework. Some problems, such as the incapability of people in many developing countries to access essential resources, such as food, medicine, and basic education for sustaining their collective life, inequality in distributing the benefits of intellectual property, accumulations of growth yields by a few gigantic corporations and so forth are examples of this symptom. Various facts and data illustrate the serious threats of an unbalanced policy in managing and regulating information and technology, which bring about the disparities in optimising intellectual property. Data on this disparity indicate that most intellectual property products and their derivatives are controlled by a few gigantic corporations in developed countries.[4] Shiva has further analysed that IP regime in the context of "free trade" and "trade liberalisation" as instruments of piracy at three levels[5]: resource piracy, intellectual and cultural piracy, and economic piracy. Some data show several resource piracies[6] and cases of misappropriations in the exploitation of intellectual products.[7] Several instances of misappropria-

4 *See* Drahos, P. & Braithwaite, J., "Information Feudalism: Who Owns the Knowledge Economy?" 5 (The New Press, New York 2003).

5 *See* Shiva, V., "Intellectual Property Rights", available at: http://www.psrast.org/vashipr.htm, retrieved 26 February 2005.

6 For example, developed countries have earned a profit of up to $US 500–800 billion from genetic resource piracy. Of that amount, only $US 4 billion has been returned to the countries of origin of these resources. The amounts are used to support conservation programs, not for people's welfare. This fact shows the deep concern of the optimalisation of genetic resources through the exploitation of information and technology under IP regimes. *See* Ekawati, Y., "Dari COP-7 CBD: Membagi Keuntungan Pemanfaatan Hayati dan Hutan Lindung" in: "COP 7 CBD, Distributing Profits from the Optimalisation of Biological Diversity and Rainforest", 25 February 2004 Kompas 10.

tion have occurred in patent cases, such as *Turmeric Patent*, *Ayahuasca Patent*, the *Neem Tree Patent*, *Guaymi Patent*, *Aborigin Design* (*Milpurrurru*). In another example, Japanese corporations have patented several Indonesian traditional formulas, genetic resources and biological diversities,[8] and in copyright cases, traditional designs for batik and jewellery[9] have been registered in Europe, Japan and the US.

Secondly, the core problem refers to the substance and structure of law, particularly in an IP regime. At the substantial level, the crux of the tension lies in the different characteristics of the existing norms between developed and developing countries. On the one hand, intellectual property is likely to contain individualist, materialist, and exclusivist characteristics, which have developed over the years and reflect the interests of Western and developed countries.[10] On the other hand, most of the developing world tends to involve characteristics of communalism, spiritualism and inclusivism. Anup Shah, in "The WTO and Free Trade", notes a number of problems concerning TRIPS related to the weaknesses of its internal regulation[11] to protect the public interest in the field of health – drugs and medicines, food, and the

7 Misappropriation is used to illustrate a condition where corporations or researchers (inventor or creators) exploit public goods, such as information, knowledge and technology, traditional knowledge, cultural property, folklore, which are in the public domain. They have exploited them without the benefit being fairly shared. *See* Downes, D.R., "How Intellectual Property Could Be a Tool to Protect Traditional Knowledge" 25 Columbia Journal of International Law 278–280 (2000); Kadidal, S., "Subject Matter Imperialism? Biodiversity, Foreign Prior Art and the Neem Patent Controversy", 37 Idea Journal of Law and Technology 371–378; Posey, D.A. & Dutfield, G., "Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities", 26 (International Development Research Centre, 1996); Gupta A.K., "The Role of Intellectual Property Rights in the Sharing of Benefits Arising from the Use of Biological Resources and Traditional Knowledge", available at: www.wipo.int/tk/en/unep, retrieved 18 March 2005.

8 Relating to those cases, Japanese corporations have patented at least 37 kinds of Indonesian plants and traditional knowledge which are registered by the European Patent Office. *See* Eropean Patent Office, at: http://eatespacenet.com. In addition, the process of making batik and some therapeutic methods from rottan have been patented in foreign countries. *See also* Sardjono, A., "Pengetahuan Tradisional: Studi Mengenai Perlindungan Hak Kekayaan intelektual atas Obat-obatan (Traditional Knowledge: A Study on the Intellectual Property Protection for Medicines)" 43 (Program Pascasarjana Fakultas Hukum, Universitas Indonesia 2004).

9 A Balinese jewellery designer "Suwarti" was threatened with a law suit for "pirating" the designs of a US jewellery designer, when those designs were actually based on traditional designs. The case was settled out of court. *See* Setiawan, B., "Menggugat Globalisasi", (INFID & IGJ, 2001); Jhamtani, H. & Setiawan, B., "Doha Agenda: 'The Death of Development in Indonesia?'" (2002), available at: http://www.infid.be/pdf, retrieved 6 January 2006.

10 *See* Brierley, J.E.C., "Major Legal Systems in the World Today", Sec. II, at 24 (Steven and Sons, London, 1978).

11 For the weaknesses of the TRIPS internal regulation, *see* http://www.twnside.org.sg/title/twr120a.htm, retrieved 15 March 2005.

distribution information and technology. At the structural level, these problems have been rooted in the insertion of "hard law"[12] as the core characteristic of the TRIPS Agreement and its implementation, which tends to serve and protect the interest of capitalism[13] in developed countries. This can be seen in technological knowledge, which is clustered in developed countries. For the most part, such know-how lies in the hands of multinational companies (MNCs), which dominate research and development (R&D) activities worldwide.[14] The impact of an unequal distribution of information and technology, including the failure of technology transfer from developed to developing countries, is largely felt in developing countries, particularly in the field of public health and sanitation, food, malnutrition, and education.[15]

Thirdly, the root cause of the symptoms can be found in the philosophical and conceptual domain which validates the exclusive right principle, particularly in the recent market contexts. The concept of an exclusive right in the doctrine of the inventor and creator – the IP regime – is central to every effort to safeguard intellectual products.[16] Even though the exclusive right principle plays a significant role in accelerating industry and trade development towards economic progress,[17] it also contains potential threats that may widen the gap between developed and developing countries in optimising information and technology. In order to avoid these threats, it is necessary to link the intellectual property right with human rights, public interest, and the social function.[18] Therefore, it is relevant to re-examine the concept of the implementation and impact of exclusivity in the IP regime. This is important to provide more equal and just access for Indonesians and others to information, knowledge, and technology.

12 The TRIPS Agreement utilises "hard law" in protecting intellectual property rights by higher standards and greater emphasis on legal enforcement. *See* TRIPS Agreement, Art. 1, Secs. 1–8. *See also* Drahos, P., "Thinking Strategically about Intellectual Property Rights", 21 Telecommunications Policy No. 3, at 201 (1997).

13 *See* Habian, E., "Intellectual Property Rights for The Rich or The Poor?", available at: http://www.wu-wien.ac.at/usr/h99a/h9950236/iprs/introduction.htm.

14 *See* Correa, C. "Intellectual Property Rights, the WTO and Developing Countries: The TRIPS Agreement and Policy Options" 5 (Zed Books, London 2000); *see also* Archibugi, D. & Pietrobelli, C., "The Globalisation of Technology and its Implications for Developing Countries: Windows of Opportunity or Further Burden?", available at: http://www.cid.harvard.edu/cidbiotech/events/archibugi_pietrobelli_280202.pdf.

15 *See* "WTO Deal Paves Way for More Important Negotiations", 11 September 2003, available at: http://freedomtotrade.org/page.php.

16 *See* Mackaay, E., "An Economic View of Information Law", in:. Korthals Altes, W.F., et al. (ed.), "Information Law towards the 21st Century" 47 (Information Law Series, Kluwer, 1992).

17 *See* Sherwood, R.M., "Intellectual Property and Economic Development", in: "Westview Special Studies in Science, Technology and Public Policy", 28–37 (Westview Press, 1990).

18 *See* WIPO Panel Discussion on "Intellectual Property and Human Rights" 9 November 1998.

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3. *The Implication of the Inventor and Creator Doctrine: An Indonesian Case*

The strong pressure to harmonise the implementation of the inventor and creator doctrine, which encapsulates exclusive rights, through stricter rules worldwide raises more complex questions, particularly in developing countries including Indonesia. This complexity is caused by the fact that each country has unique, specific and domestic problems, *inter alia* relating to socio-cultural, religious, geographical, demographical, political, legal and economic aspects.[19] The forced uniformity for the purposes of harmonisation has several implications at the dogmatic or legislation level, and at the practical level, particularly concerning political, social, and economic – information and technological – implications.

At the dogmatic level, the implication of the exclusive right principle can be seen in the Indonesian development of intellectual property legislation (both patent and copyright). In order to comply with TRIPS, Indonesia has revised its patent and copyright laws on several occasions.[20] Apparently, those revisions were intended to satisfy the interests of developed countries that have been embodied in the minimum standard norms of the TRIPS Agreement.[21] These laws were ratified without a prior study of their impact and without proper public consultation. The objective was only to comply with WTO rules and to avoid pressures and threats from Indonesia's trading partners. The patent law was enacted without considering its long-term impact. Indonesian patent law is projected as having adverse impacts on biodiversity and traditional knowledge as well as community innovation.[22] The revision process had sidelined differences of opinion and conflicts of interest between various sectors of the community, while both the government and the members of the House of Representatives did not attempt to bridge those differences.[23] The ratification process did not involve those communities which

19 *See* Smith, M.W., "Bringing Developing Countries' Intellectual Property Laws to TRIPS Standards: Hurdles and Pitfalls Facing Vietnam's Efforts to Normalize an Intellectual Property Regime", 31 Case W. Res. J. Int'll 211, 223–228 (1999); Heath, C., "Intellectual Property Rights in Asia: An Overview", 28 IIC 3 (1997).

20 *See infra* note 25.

21 Nearly 85% of all causes of this change are imperatively intended to conform to the TRIPS, while the rest of the changes result from Indonesian experiences. *See* Soelistyobudi, H., "Alasan-alasan Perubahan dalam Perundang-undangan di Bidang Hak Milik Intelektual di Indonesia (Change for Reasons in Indonesian Intellectual Property Legislation)", (Sekkab Ri, Jakarta 1997).

22 *See* Jhamtani, H. & Setiawan, B., "Doha Agenda: The Death of Development in Indonesia? (2002), available at: http://www.infid.be/pdf, retrieved 6 January 2006.

23 Jhamtani and Setiawan reported on the struggle of NGO efforts to become involved in the revision process, either by asking for a hearing with the House or by attending meetings held by the government. NGOs were concerned with two aspects of Indonesian Patent Law: (i) the impacts on biodiversity and traditional knowledge; and (ii) the impacts on public health. They asked the government to hold public consultations on the ratification

might suffer from the implementation of the patent law, namely farmers, traditional healers and traditional handcrafters.[24] Most substantial parts of the patent law, which influence the sustainability of people, have been transplanted from Model Laws without considering the main characteristics and the needs of Indonesians.

Then, at the practical level, since the beginning of the 1980s, the Indonesian government has embarked upon intensive and extensive Indonesian legal reform, particularly in the field of intellectual property laws. In this sense, the government has introduced stricter intellectual property rules to create a conducive atmosphere for improving the creativity and productivity of people[25] and to attract foreign direct investment in Indonesia.[26] Several key figures who were involved in drafting a series of patent acts admitted that the Indonesian intellectual property legislation has been introduced to attract foreign investors. It was not aimed at encouraging innovation, but rather was needed to attract foreign investors who wanted protection for their works. Unfortunately, there is no hard evidence for this policy. Correa and Maskus have found that there is no significant correlation between stricter rules of intellectual property and increased investment.[27] This policy has raised a more complex problem in its implementation when faced with the demands of most people to have more equitable access in optimising information, science, and technology for sustaining their lives.[28]

of Art. 27(3)(b), parallel imports and compulsory licensing. *See* Jhamtani, H. & Setiawan, B., *ibid.*

24 Jhamtani, H. & Setiawan, B., *ibid.*

25 Promoting invention, innovation and productivity is one genuine interest in the protection of intellectual property. *See* Indonesian Patent Act (IPA) No. 6/1989 (Staatsblaad RI 1989 No. 39); IPA No. 13/1997 on the Amendment of IPA No. 6/1989 (Staatsblaad RI 1997 No. 30); IPA No. 14/2001 (Statsblaad RI 2001 No. 109); and copyright legislation: Indonesian Copyright Act, (ICA)No.6/1982 (Statsblaad RI 1982 No. 15); ICA No. 7/1987 on Amendments of ICA, No. 6/1982 (Staatsblaad RI 1987 No. 42); ICA, No. 12/1997 on the Amendments of ICA, No. 6/1982 (Staatsblaad RI 1997 No. 29); ICA, No. 19/2002. *See also* Antons C., "The Development of Intellectual Property Law in Indonesia: From Colonial to National Law" 22 IIC 374 (1991); Antons, C., "Intellectual Property Law in ASEAN Countries: A Survey" 13 European Intellectual Property Review 84 (1991).

26 *See* Lepp, A.W., "Intellectual Property Rights Regimes in Southeast Asia" 6 Journal of Southeast Asia Business 31 (1990); *See* "UU Paten Bisa Memberi Jaminan Para Investor" (The *Patent Act* can Provide Security to Investors) Kompas (19 June 1989); *See also* "Ditinjau dari Segi Inovasi, UU Hak Paten Belum Perlu (From the Innovation Side, the Patent Act is not Necessary)" 23 June 1989 Kompas 6.

27 *See* Corea, "Bilateral Investment Agreements: Agents of New Global Standards for the Protection of Intellectual property Rights?" 2004 Grain 3, available at: www.grain.org. *See also* Maskus, "The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer", at 54.

28 Clearly, this phenomenon reminds us of the danger of Reichmann's protectionist appetites which stated that there are "powerful industrial combinations that have successfully captured the legislative and administrative exponents of trade and intellectual property policies ... and where the interest of both consumers and small or medium-sized innovators

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As a result, Indonesian intellectual property became more difficult to enforce. Ignorance of intellectual property law is widespread within the country and the protection of intellectual property rights is both practically and legally weak. Some research has shown that the implementation of the absolute exclusivity principle of intellectual property law in Indonesia may have a detrimental effect on Indonesia's technological and economic development, as the law increases the local cost of important technological products and further inhibits local technological development.[29] Before the intellectual property campaign in Indonesia, many innovations which are within the public domain, such as woven tie cloth, *tenun ikat*, *batik*, herbal medicine, *tempe* making, *keroncong, gamelan* music, and so on were shared by the public. Now, patent and copyright laws stimulate and force people to privatise public innovations in private property.[30]

4. Exclusive Rights Re-Examined

Several preliminary studies[31] show that the exploitation of the exclusive right in intellectual property brings about injustice in the distribution of access to and the optimisation of global resources. It is caused by the accumulation of power holders' interests concerning property, as a consequence of an inequitable legal framework. The result in these circumstances is that the exclusive right may surpass collective rights, such as public interest and social function. Some authors have pointed out that the exclusive right in intellectual property may contain a dangerous inner logic,[32]

are held hostage to the political influence of oligopolistic combinations that use intellectual property rights to expand market power". *See* Reichman, J.H., "Compliance with the TRIPS Agreement: Introduction to a Scholarly Debate", 29 Vand. J. Transnt'l L. 363 (1996).

29 Hayyan ul Haq, "Patent Legal System: A Comparative Study in Australia and Indonesia", research paper, Law School, University of Technology Sydney (2000); *See also* Kusumadara, A., "Analysis of the Failure of the Implementation of Intellectual Property Laws in Indonesia", at ii–iii, Sydney Law School (2000); Sardjono, A., *supra* note 8.

30 For example, some traditional works and folklore of the Sasak community in Lombok have been identified and an attempt is being made to protect them through identifying and registering the cultural property with the Directorate General for Intellectual Property. *See* Hayyan ul Haq, "Requestioning the Existence of the Indonesian Copyright Regime in Protecting Cultural Property", in: "Molengrafica Series", Vol. 15, (Intersentia, Oxford, Antwerpen, New York 2004).

31 *See* "Club of Rome" (1976); Takirambudde, A.T.N., "Technology Transfer and International Law" (1980); Praeger, at 5; OECD (1970); OECD (1984); UNDP (1999); Pugatch, M.P., "The International Political Economy of Intellectual Property Rights", (Edward Elgar); Granstrand, O., "The Economics and Management of Intellectual Property: Towards Intellectual Capitalism", (Edward Elgar, Cheltenham, UK, Northampton, MA, USA 1999); Maskus, K. & Reichman, J. H., (eds.), "International Public Goods and Transfer of Technology under a Globalised Intellectual property", (Cambridge University Press, 2005).

32 Drahos notes that exclusivity creates self-interest. In a market context, intellectual property rights create distinctive kinds of opportunities. Thus, rational, self-interested actors

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which illustrates the tension between basic reasons that validate the existence of exclusive rights and the impact of rights exploitation. This is caused by the weakness of the legal system in providing ideal protection and maintaining a balanced relationship between the individual and collective interest. Consequently, the spirit of capitalism allows for and even strengthens individual or group aggressiveness to surpass the social interest. Not surprisingly, the disparity in accessing information and technology becomes more widespread where power-holder groups control their distribution to the rest. The above description demonstrates the structural difficulties in appropriately utilising intellectual property to fulfil and protect peoples' interests in optimising information, knowledge and technology. This is because the liberal, Eurocentric discourse on the concept of intellectual property emphasises individual rights to private property. It is inseparable from the history of Western law, which since the Renaissance, Romano-Germanic and Common Law eras has developed philosophical teachings which have given prominence to individualistic, liberalistic and exclusivist notions.[33] Apparently, those characteristics are alien to most developing countries. The spirit of privatisation also has further implications for the attitudes of people (developing world, i.e. Indonesia) towards the commercial exploitation of information, knowledge, and technology, because in the view of Indonesians, property rights are used to maintain and develop group identity, unity and sustainability rather than individual economic pursuits. Currently, patent and copyright laws stimulate and force people to privatise public innovations in the form of private property.[34]

Through incentive theory, the exclusive right is empowered and entrenched by a few gigantic corporations. It was these corporations which, to a greater extent, enjoyed and employed the exclusive right to strengthen the accumulation of profits towards intellectual capitalism.[35] This inconsistency was caused by what Drahos called the "danger of the inner logic" of the exclusive right.[36] The lack of an ideal legal framework to guarantee the just optimisation of exclusive rights results in the power holder, i.e. capitalism, exploiting

take those opportunities. By doing so, they defeat the social interest that provided the justification for having the rights in the first place. *See* DRAHOS, P., "A Philosophy of Intellectual Property", 119 (Dartmouth, 1996).

33 BLAY, S., "International Law and the Protection of Intellectual Property: From Paris to TRIPS", handout of a lecture on international law in IASTP Group, UTS, Sydney, 21 March, 2000; *See* YNTEMA, H.E., "20th Century Comparative and Conflicts Law, 1961", in: BRIERLEY, J.E.C., "Major Legal Systems in the World Today", Sec. II, at 24 (Steven and Sons, London 1978).

34 For Indonesian characteristics, *See* HOLLEMAN, J.F., (ed.), "Van Vollenhoven on Indonesia Adat Law", trans. HOLLEMAN, J.F., KALIS, R. & MADDOCK, K., (M. Nijhoff, The Hague 1981); *See also* MOH, K., "Peranan Hukum Adat di dalam Pembangunan Nasional, Prae-Advies Seminar Awig-awig", (Denpasar, Bali 1969).

35 *See* GRANSTRAND, O., "The Economics and Management of Intellectual property: Towards Intellectual Capitalism, (Edward Elgar, Cheltenham, UK, Northampton, MA, USA 1999).

36 *See:* Drahos, 1996, *supra* note 39, at 119.

the exclusive right to the maximum.[37] Clearly, the shift in the meaning and the ultimate goal of the doctrine is caused by manipulation and forces of self-interest, or corporate interest (capitalism). Undoubtedly, intellectual property rights are rights, which are created for and exist within market contexts.[38] Now, under the IP regime, the spirit of the maximalisation of exclusive rights brings about disparity and the inappropriate optimisation of information and technology. For that reason, the exclusive right principle in intellectual property should be re-examined so as to create an ideal and proportional legal framework for the greatest benefit of mankind.

5. Ideal Optimisation of Information and Technology: An Indonesian Perspective

In order to explore and to find an ideal alternative for a legal framework in optimising information and technology under the IP regime, this work may resort to a number of theoretical frameworks.[39] It is important to lay down the ground rules for people to live together in harmony. This work elaborates the system's philosophy which links and matches the system of values in Indonesia. This view sees unity as the main mandatory element of the system, i.e. a social system to maintain sustainability. This unity is indicated by a good or normal interaction among the components in a social system. It was interaction, not components, that became the main focus of the system's view. A social system will work properly if all components can interact normally. Good quality interaction among the components will stimulate the full participation of the components so as to function proportionally, which in turn, maintains unity. This condition requires a balance or equality. In a legal context, this term can be interpreted as justice. Therefore, justice should be dedicated to maintaining unity and sustainability. The legal consequence is that all systems of interaction either at the political, economic, social, and cultural level should be devoted to creating and strengthening the unity and sustainability of collective life. Thus, all development programmes which ignore the main mandatory element of such systems become invalid.

37 It is interesting to note Lemley's analysis of economic theory which demonstrates that too much protection is just as bad as not enough protection, and therefore the reason why intellectual property law must search for a balance, not free riders. *See* Lemley, M.A., "Property, Intellectual Property, and Free Riding", in: "John M. Olin Program in Law and Economics, Working Paper No. 291", (August 2004), and "Social Science Research Network Electronic Paper Collection" available at: http://ssrn.com/abstract=582602, retrieved 18 December 2005.

38 *Ibid*.

39 The framework and indicators for analysing the processes and outcomes of the exclusive right principle in the inventor and creator doctrine will adopt and synthesise concepts of natural law, utilitarian logic, Aristotelian's corrective justice, the Rawlsian theory of justice, the system's view. In addition, these notions will be used to elaborate and explain the principles of the Pancasila as the Indonesian grand norm.

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5.1. In Search of a Legal Framework: An Insight into Pancasila

Before embarking on a further discussion of these theoretical frameworks, it is important to outline the ideal state of the social order[40] in managing information and technology in Indonesia. The ideal state of social order can be traced through the Pancasila as the grand norm of Indonesian positive laws. Hierarchically, after the Pancasila, the Indonesian positive law source is the 1945 Constitution. In its Preamble, the 1945 Constitution sets forth the Pancasila as the embodiment of basic principles of an independent Indonesian state.[41] These principles are the sacred values of Pancasila. It is a cultural principle, which should be respected by every Indonesian because it is the ideology of the state and the life philosophy of Indonesian society. To put it succinctly, and in the order set down in the constitution, the Pancasila principles are: (i) a belief in one supreme God,[42] (ii) humanitarianism,[43] (iii) the unity of Indonesia,[44] (iv) democracy,[45] and (v) social justice.[46]

40 The Ideal state of social order (the picture or elements of the social contract) should be agreed upon by all components in a society. It is important as a basic framework to govern collective society. As Locke said, free people need to agree on some ground rules in order to live together in harmony.

41 Pancasila does not stem from any particular ethnic group. It was intended to define the basic values for an "Indonesian" political culture. *See* SOEKARNO, "Pancasila" (Binatjipta, 1957); *See also* OESMAN, O. & ALFIAN (eds.), "Pancasila sebagai Ideologi dalam Berbagai Bidang Kehidupan, Bermasyarakat, Berbangsa dan Bernegara, (Pancasila as Ideology in Various Life)", (BP 7 Pusat, 1986); The US Congress Library on Pancasila, "Pancasila: The State Philosophy"; "Lahirnya Pancasila" Pidato Soekarno, 1 Juni 1945 (The Birth of Pancasila: Oratie of Soekarno, 1 June 1945), available on: http://id.wikisource.org/wiki/Lahirnya_Pancasila

42 This principle reaffirms the Indonesian people's belief that God does exist. It emphasises that the pursuit of sacred values will lead people to a better life. This principle matches the views of natural law or moral law theorists, such as Aquinas and Locke who touched on the role of God in basic morality in validating the existing positive laws toward better life. Principally, natural law refers to moral law that provides a moral and ethical validation to protect rights, *i.e.* intellectual property rights. Normatively, morality must not be separated, and a law which is totally divorced from morality ceases to be law. *See* CURZON, L.B., "Jurisprudence", (Cavendish Publishing Ltd, London 1993).

43 The humanitarian principle requires that every human being should be treated according to his/her dignity as God's creatures that tend to love "goodness". This principle is also equal to Aquinas' theory, which emphasised the "the essence of human nature", which also tends to favour goodness. Therefore, it can be stated that goodness is a human value. According to Aquinas, goodness and happiness, as the ultimate goal of the human being, are moral foundations of positive law. *See* AQUINAS, T., "The Ends of Man, Summa Contra Gentiles", 3rd book, 609–613, PEGIS, A.C. (ed.), The Modern Library New York).

44 This principle embodies the concept of nationalism. It envisages the need to always foster national unity and integrity. In 1928, the Indonesian youth pledged one country, one nation and one language, and after Pancasila was constructed as the national ideology. The Indonesian government enshrines the symbol of "Bhinneka Tunggal Ika", which means "Unity in Diversity". *See* OESMAN, O. & ALFIAN, (eds.), "Pancasila sebagai Ideologi: Dalam Berbagai Bidang Kehidupan, Bermasyarakat, Berbangsa dan Bernegara", BP 7 (Pusat, 1986); *See also* Government, "Pancasila: The State Philosophy"; The US Congress Library

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To achieve the ideal state of social order, the Indonesian government introduced national development based on the Pancasila and the Undang Undang Dasar 1945 (the 1945 Constitution).[47] Theoretically, all laws emanate from the Pancasila and the 1945 Constitution. Thus, the logical and juridical consequence of this notion constructs Pancasila as the principle foundation of the truth value which legitimates other legal concepts. In this case, the Pancasila is the source of the law's goals, which establish and structure a fundamental foundation for general legal principles in Indonesia. The five basic principles of the Pancasila are stipulated in the four main ideas of the Preamble to the 1945 Constitution: (i) the state is based on God the Almighty according to civilised society within the framework of the Indonesian union state; (ii) the state has sovereignty based on representative society; (iii) the state manifests social justice for all Indonesians; and (iv) the state provides protection for all Indonesians and territory based on unity.

The Pancasila and the Preamble to the 1945 Constitution are considered as the axiom of Indonesian legal endeavours, i.e. managing information and technology, which cover the legal objectives, the legal resource, social justice, and legal protection aspects. The first main idea refers to the legal objectives which govern society's interests (emerging rights and duties) as determined by God.[48] In this case, the law emphasises the importance of a balance being drawn between rights and duty.[49] Thus, any action to help each other is

on Pancasila. Regarding those points, it is necessary to restate that the concept of unity should not be limited to the territoriality notion. The unity principle should be appreciated as the national characteristic which reflects society's awareness of the importance of unity as a basic requirement to maintain the sustainability of collective life in the framework of systems.

45 The Democracy of Pancasila calls for decision-making through deliberations, or *musyawarah*, to reach consensus, or *mufakat*. *Ibid*

46 This principle requires the equitable distribution of welfare for all people. This means that all the national potentials should be utilised for the goodness and happiness of people. Social justice implies protection for the weak. Protection should prevent abusive treatment by the strong and ensure the rule of justice. *Cf.* Rawlsian justice, *infra* note 74.

47 The 1945 Constitution of the Republic of Indonesia as amended by the First Amendment of 1999, the Second Amendment of 2000, the Third Amendment of 2001 and the Fourth Amendment of 2002. The 1945 Constitution consists of 37 Articles, three Articles on transitional provisions, and two Articles on additional provisions. Its ideology and concepts were laid by the founding fathers of Indonesia (Muhammad Yamin, Supomo, Sukarno and Hatta). The Indonesia Constitution (*Undang Undang Dasar* 1945), being the "supreme law, enshrines the Pancasila ideology – or the basic state philosophy, which embraces the five basic principles".

48 Locke argues that these duties are imposed by God and are discernible by reason. For Locke, the ultimate source of law is God, not reason. Yolton said, "Locke was seeking to justify a system of morality by grounding the moral law in something objective. The law of nature is a decree of God, not of man's reason. It is part of God's will". Though the Laws of nature do not originate with mankind, human reason can determine what the laws of nature are; *see* Yolton, J.W., "Locke on the Law of Nature", 67 Phil. Rev. 477, 483, 487–489 (1958).

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necessarily an obligation to fulfil the need of sustainable collective life. This condition requires that every human being should act based on justice and civilised rules. In this case, they should sustain their own existence and the existence of others; they even have an obligation to sustain other forms of life.[50] A harmonious relationship between rights and obligations is a must. Therefore, this relationship requires legal protection. Thus, there is clearly a strong link between moral and positive law. In this context, positive law must be in accordance with morals.[51] Law should help human beings to develop their existence and potential based on their nature: conserving the dignity of human beings, maintaining justice, ensuring equality and freedom, developing public interest and welfare.[52]

The second main thought is legal resource which contains the characteristic of formal logic. It is manifested in the form of the state as the organisation of the power of the people, and democracy as based on consensus (*musyawarah*) in the form of wisdom. The state, as the power of organisation over the people, has rights and obligations to regulate vital and strategic commodities, including the utilisation of information and technology in order to fulfil the needs of individuals, the community and the state. Management in utilising them should be regulated by the state. This is because the state has authority and sovereignty to take necessary policies and actions to achieve the ultimate goal of society. In order to achieve this goal, the government should consider democracy as a state mechanism in regulating rights and obligations.

49 This is the basis of social justice. It means that rights cannot surpass an obligation. Likewise, an obligation cannot overwhelm a right. Every person has a right to obtain what he or she needs in fulfilling his or her need in life. Every person has an obligation to provide what he or she can give to others who need it in order to maintain and nurture their survival.

50 The above concept is based on a human consciousness that all human beings are God's creatures. It does not stem from "freedom", as Lotz said "limitation of a human being is caused by his or her freedom". Interdependency between a human being and nature requires a balance between rights and obligation. This view is also different to Meuwissen who laid down rights, obligations, and authority as basic categories which derived from freedom. Meuwissen referred to LOTZ, J.B., "Person und Freiheit", (Freiburg, Basel, Vienna 1979). *See* MEUWISSEN, D.H.M., (I) 65. in "Titahelu".

51 According to Aquinas, law may contain injustice if it contradicts the idea of public welfare. In this case, moral reason should be legal reason, because they are part of the fundamental criteria for legal validity. Natural law proponents argue that the legal norm must fulfil the moral criteria, because they believe that there is an essential link between law and morality. *See* LEITER, B., (ed.), "Objectivity in Law and Morals" 6 (Cambridge University Press, 1999); BRINK, D.O., "Legal Interpretation, Objectivity and Morality" in: LEITER, B. (ed.), *ibid*, at 12–13.

52 Injustice in law can occur if (i) government forces law that contains no public welfare, but only its interest; (ii) legislators make law by going beyond their own authority; and (iii) law is forced on society, even though it is based on public welfare. *See* AQUINAS, T., "The Ends of Man, Summa Theologica, in: Lord Lloyd of Hampstead (ed.), "Introduction to Jurisprudence" 96–97 (3th ed., Praeger Publishing, 1972).

The third main idea is social justice. This concept might cover a broad sense of justice, such as distributive justice, commutative justice, corrective justice, legal justice, and collective protection of life. The balance between rights and obligations as mentioned in the first main thought is the basic requirement for achieving social justice. However, the achievement should be manifested in an orderly fashion through formal methods as mentioned in the second main thought. The embodiment of the concept into positive laws may concern Rawlsian justice.[53]

The fourth main thought concerns the legal protection aspect. It refers to the state's authority in regulating rights concerning information and technology, and its protection. Providing legal protection should manifest justice as mentioned in the third main thought. Accordingly, protection for creativity and productivity must be dedicated to achieving the collective goal without damaging individual interests. On that ground, the state should protect the existence of any party, as long as the related parties – individuals and groups – recognise the other's existence. To this degree, all of the above main thoughts were considered to be indicators of equity, justice, and truth. Thus, it can be a basic consideration to legitimate the state's authority in regulating the granting, function, and utilisation of information and technology, and human behaviour and action in using and optimising information and technology, either for oneself or society.

Based on the description above, the general legal principles, legal theories, legal dogma and legal practice concerning the just utilisation of information and technology should emanate from the grand norm. In Indonesia, basic concepts of justice can be explored from the social justice concept within the framework of the Pancasila. Consequently, all laws and regulations relating to the utilisation of information, knowledge and technology should take into consideration the greatest benefit of people based on social justice[54] in the Pancasila and the 1945 Constitution. This reason is reflected in a series of Indonesian intellectual property, research, science, and technology legislative Acts which refer to the Pancasila and the 1945 Constitution.

In order to optimise the utilisation of information and technology for the greatest benefit of people, it will be useful if this research also elaborates argumentations on public interest and social functions. In elaborating those issues, it is necessary to discuss some relevant questions, such as how to link the concept of social justice and argumentations on information and technology as a social function? How to appreciate the government's rights to grant and control information and technology, and their utilisation for public interest based upon their social function? How to appreciate individual and communal rights to information and technology, and so forth? Therefore, a

53 *See infra* note 60. *See also* Morawetz, T., "Justice" in: "The International Library of Essays in Law and Legal Theory, Schools 2", 1 (Dartmouth, Aldershot, Sydney 1990).

54 Preamble to Law No.18/2002 concerning the National System of Research, Development and Application of Science and Technology (NASRDAST).

discussion of legal principles, which govern the relationship among the government's rights, public rights and individual rights in utilising information and technology based on social justice, becomes more important. Legal principles have certain functions: (i) as a basis of law and order, which occupies a central position in legal systems; (ii) as a basic understanding and basic values, such as a subject that dominates the essence or substance of legal relationships; (iii) a subject that gives meaning to every figure of law; and (iv) a subject that lays down a basis for value decision systems. Thus, social justice and other principles of the Pancasila as basic thoughts were stipulated in the Preamble to the 1945 Constitution. Those principles would be a subject of discussion concerning the contents of the existing legal principles – covering general legal principles and more specific legal principles – in Indonesian positive law. The essence and contents of the main thought behind the Preamble to the 1945 Constitution constitute the meaning of the general principles of law.

Theoretically, all legal products, *inter alia* legislative and executive products, individual and collective products such as contracts in utilising information and technology, should be in accordance with the Pancasila and the 1945 Constitution. This concept is consistent with Kelsen's *stufenbau* theory.[55] In this respect, the 1945 Constitution, Art. 31(5) states that: "The government shall advance science and technology with the highest respect for religious values and national unity for the advancement of civilisation and prosperity of humankind". This Article shows that the state has authority and control to develop and optimise information, science and technology, and that all of the country's intellectual products should be used and optimised for the greatest benefit of the people. In this case, even though the 1945 Constitution does not mention intellectual property explicitly, interpretation through analogy (*argumentum per analogiam*), we can find the spirit of guidance by the Article in utilising and optimising information and technology as intellectual property products for the prosperity of humankind. Thus, in practice, those legal principles should provide guidance to settle various disputes emerging from conflicts of interest in controlling important and vital information and technology.

As a welfare state, Indonesia should prepare a national development[56] programme to improve society's welfare. This duty is derived from two main

55 *See* KELSEN, H., "The Pure Theory of Law", (University of California Press, Berkeley, Los Angeles 1970); KELSEN, H., "The General Theory of Law and State", 117 (Harvard University Press). *See also* the 1945 Constitution, Art. 31(5); *See also* considerations of a series of Indonesian Patent and Copyright legislation; and the Law of the National System for Research, Science and Technological Development (UU No. 18 Year 2002). All legislation under the Pancasila and the 1945 Constitution refer to them.

56 Indonesia, like other countries, needs equitable information and technology for developing various economic activities, such as industry, trade, agriculture, education, health, food, and other basic needs of society to endeavour towards the national development programme. The national development program aims to fulfil such needs towards a better life

ideas: (i) the state should facilitate and accelerate the fulfilment of citizen's rights,[57] and (ii) the state should integrate economic factors into social justice.[58] In terms of law, the phrase "for the greatest benefit of people" is the ultimate goal in utilising information and technoloby.[59] The ultimate goal is the people's interest, so the utilisation of information and technology should be in an appropriate (efficient) manner.[60] The character of this "appropriateness" is absolute. This concept will be significant if it is included in positive laws.

Admittedly, that manifestation of "the greatest benefit of the people" cannot be easily explained. Therefore, it is essential to identify the constitutive elements or the main characteristics of the phrase "the greatest benefit of the people", either explicitly or implicitly.[61] Through interpretation, the complete meaning of "the greatest benefit of the people" is any fruitfulness or

based upon imperative mandatory needs. The 1945 Constitution, therefore, stipulates "for the greatest benefit and welfare of the people". *See* Arts. 31(5) and 33(3).

57 The State's obligation to fulfil citizen's rights is the main duty that emerges from its position as the regulator of welfare. *See* Aubert, W., "The Rule of Law and Promotional Functional Law", in: Tuebner, G., (ed), "Dilemma of Law in Welfare States", 32 (Walter de Gruyter, Berlin, New York 1986).

58 Broekman, J.M., "Legal Subjectivity and the Welfare State", in: Tuebner, G. *ibid*, at 79.

59 There are three Articles in the 1945 Constitution which mandate the fulfilment of citizen's rights to information, science and technology as part of human rights. *See* the 1945 Constitution, Arts. 31(5) and 28(F) which states that: "Every person shall have the right to right to communicate and to obtain information for the purpose of the development of his/her self and social environment, and shall have the right to seek, obtain, posses, store, process, and convey information by employing all available types of channels"; and the 1945 Constitution, Art. 28(C) which states that: "(i) every person shall have the right to better him/herself through the fulfilment of his/her basic needs, the right to education and to benefit from science and technology, art and culture, for the purpose of improving quality of his or her life and for the welfare of the human race." *See also* Indonesian Patent Act, and the Indonesian Copyright Act, Considerations and Part I. General.

60 In this context, the meaning of appropriateness, efficiency and welfare can be linked to the Rawlsian justice principle. For example, regarding wealth, Rawls proposed certain principles: social and economic inequalities should be rearranged so that they are both to the greatest benefit of the least advantaged, consistent with the just savings principle, and attached to offices and positions open to all under conditions of fair equality of opportunity. Then, regarding the efficiency principle, Rawls maintained that an inequality of opportunity must enhance the opportunities of those with the lesser opportunity; and that an excessive rate of saving must on balance mitigate the burden of those bearing this hardship. *See* Rawls, J., "A Theory of Justice", (Harvard University Press, 1999); Merrit, G., "Justice as Fairness: A Commentary on Rawls's New Theory of Justice", 26 Vand. L. Rev. 665–686 (1973); Kordana, K.A. & Tabachnick, D.H., "Rawls & Contract Law"; and other various reviews on Rawlsian Justice.

61 A goal can be formulated according to two methods: explicitly, it can be differentiated through specific behaviour or action such as commands (imperative norm); and implicitly, it can expressed by referring to the main thought or idea without explicitly determining what kinds of conduct are prohibited or allowed. *See* Friedmann, L., "The Legal System: A Social Science Perspective", (Russel Sage, New York 1975).

usefulness that can be accessed and reached by anyone on an equal basis. If the phrase "the greatest benefit of the people" is linked to the end result of law, it can be interpreted as fulfilling usefulness for all.[62] The meaning of the phrase relates to the manifestation of appropriate policy, which is determined based on law (legal validity). It has a strong correlation with the demand for justice, such as balanced interests, public order and legal certainty.[63] The question that immediately arises is whether social justice under the Pancasila can be linked to legal validity and appropriateness? The answer is to measure the legal validity and appropriateness; all development programmes to achieve "the greatest benefit for the people" should be devoted to manifesting social justice (based on the Pancasila) through maintaining balanced interests without ignoring public order and legal certainty.

5.2. Exclusive Rights, the Social Function and the Public Interest for the Greatest Benefit

One of the main challenges in visualising the concept of the greatest benefit for the people is how to interpret, elaborate and embody this into positive laws. It is important to provide legal certainty and to avoid inconsistency between the ultimate goal and the utilisation of information and technology. This is important because utilisation of information and technology is frequently inconsistent with the ultimate goal. In practice, certain people, corporations or institutions that control information and technology, through state grants, technology trading, or other valid methods, do not use or optimise it properly. In this context, several important provisions related to social functions, national interests, public interest in regulating information and technology under the IP regime become more relevant.

In Indonesia, the social function is meant to restate the fact that the exclusive right has a social function. It is different from the concept of ownership, the right to use property/wealth (in a rational way) as Leon Duguit mentioned. The meaning of this concept is more relevant and parallel to Radbruch's social function concept where in the property right that has a social function, there is an element of a social obligation. This is similar to Notonagoro's concept, which underlies the concept of social function on the land. He started from the point of view of the state's authority. Because the state is a personification of people, the state has authority and power to guarantee the social function,[64] i.e. information and technology. The authority of state

62 The usefulness refers to the concept of utilitarian. *See* BENTHAM, J., "Bentham's Political Thought", PAREKH, B. (ed.), (Crom Helm, London 1973). An interesting discussion on Bentham as a utilitarian (1748–1832) has been elaborated by POSTEMA, G.J., "Bentham and the Common law Tradition", in: Clarendon Law Series Part II, "Benthams' Critique of Common law: The Roots of Positivism, and Part III: Law, Utility, and Adjudication", 147–459 (Clarendon Press, Oxford 1986); POSTEMA (ed), "Bentham: Moral, Political and Legal Philosophy", (Ashgate, Dartmouth 2002).

63 *See* UTRECHT, "Pengantar dalam Hukum Indonesia (Introduction to Indonesian Law)" 24 (revised ed., PT. Penerbitan dan Balai Buku Ichtiar, Djakarta 1962).

means the state's authority to regulate and maintain collective life. So, if we focus on information and technology, it means that we develop and make efforts to regulate anything concerning them. From the description above, apparently the state has a certain authority to emphasise the characteristics of the social function concerning information and technology, which should be manifested based on the public-interest principle.[65]

Normatively, Indonesian intellectual property legislation regulates these issues. For example, the Indonesian Patent Act contains the concept of the social function, which is used to restrict the implementation of patents. The social function concept in patents is derived from the concept of harmony and balance between rights and obligations.[66] It means that the social function must ensure personal rights, but if it is faced with public or national interests, the public or national interest must first be considered without ignoring personal rights.[67] The restriction relates to the provisions concerning the implementation of patents in Indonesia, such as compulsory licenses, the implementation of patents by the government, the defence and security of the state, and the national interest.[68] Unfortunately, these provisions have not worked properly because they do not yet have an implementation regulation. Consequently, they become "catch-all" articles, and leave legislators and judges to expand a wide discretion policy regarding the social function, public interests, and national interests. This leads to legal uncertainty in intellectual property.

Actually, this weakness can be dealt with by involving Indonesian Competition Law, which also provides strong protection for the public interest, the social function and the national interest.[69] Principally, the laws are most

64 Notonagoro, "Politik Hukum dan Pembangunan Agraria di Indonesia, (Political Law and Agrarian Development in Indonesia)" 106 *et seq.* (Bina Aksara, Jakarta 1984).

65 In this case, this concept may revoke the legal relationship between the owner and the property – i.e. information and technology. The implementation of the social function is highly dependent on the authority of the state.

66 Mahendra, O., "Undang-undang Paten: Perlindungan Hukum Bagi Penemu dan Sarana Menggairahkan Penemuan, (The Patent Act: Legal Protection for the Inventor and an Instrument to Improve Invention)" 23 (Sinar Harapan, 1991).

67 *Ibid.* At this point, even though the Indonesian Patent Act mentions the national interest and public interest explicitly, the Indonesian Copyright Act No. 12/2002 does not explicitly mention them. However, the Indonesian Copyright Act has regulated them implicitly in Arts. 14–18.

68 Based on the defence and security of the state, the government may undertake the working of a patent. After consultation with the Minister of Defence, the President decides on the implementation of a patent by the government that will be implemented by a Presidential Decree. *See* Art. 99(1–2) of the Indonesian Patent Act.

69 Indonesian Competition Law itself invokes the philosophy of the Pancasila. In the provisions of the statute as adopted, "monopoly practices" are defined as the centralisation of economic power resulting in the control of production or marketing "thus resulting in unfair business competition and potentially harmful to the interest of the public". It further states that, "Democracy in the field of the economy calls for equal opportunity for every

likely to be useful in meeting their goals as long as the legal rules and frameworks for analysis are clear, the derogations from market-based rules are clear, and decision-making is transparent, and agency and court discretion is limited. Unfortunately, in the implementation of Indonesian competition law, the government tends to face serious challenges due to large-scale ambiguities of a wide range of discretion.[70] Therefore, the Pancasila and the 1945 Constitution, which provide guidance to Indonesian law and regulation on how to think and act with respect to the utilisation of information, science, technology, soil, water, and other internal resources should be differentiated in clear legal rules and framework analysis.

Thus, the management and implementation of Patent and Copyright Law and other Laws concerning information, science and technology[71] should be based on the Pancasila. This concept contains several principles: the principle of the state's authority; the principle of the utilisation of information and technology for the greatest benefit of the people; and the principle of social justice as contained in the Pancasila. To simplify the concept, the first principle relates to the status of information and technology in Indonesia, and the second and the third principles concern their utilisation and optimisation, which are measured by two determinant indicators: the greatest benefit of the people, and social justice. These principles limit the state's authority to control (master) the utilisation of information and technology.

The term mastery implies the state's authority in using and optimising information and technology. With regard to the concept of mastery, the state, as the sovereign organisation, should be considered as the organisation of the people's power. Therefore, it is not relevant to assume the state's authority is like ownership theory (*domein verklaring*). The state, as the organisation representing sovereign people, has authority to regulate the availability, utility, and optimisation of information and technology; and the determination and regulation of the legal relationship between individuals or institutions (legal subjects), as well as information, knowledge and technology (legal objects). An indicator that can be used to measure the limits of the legal subjects in utilising these legal objects is the phrase "the greatest benefit of the people". Therefore, the concept of the utilisation and optimisation of

citizen to participate in the process of production and marketing of goods, and/or services, in a fair, effective and efficient business environment ...". Notwithstanding Indonesia's commitments to international conventions, it asserts "there shall be no concentration of economic power in the hands of certain business enactors ...". *See* the Indonesian Competition Law, para. 1, Secs. (b) and (c). Chapter 1, Art. 1, para 2.

70 Fox, E.M., "Equality, Discrimination, and Competition Law: Lessons from and for South Africa and Indonesia", 41 Harv. Int'l. L. J. 594 (2000).

71 The formulation of consideration (a) of Law No. 18/2002, which applies the First Principle of "God Almighty" indicates its meaning: "[a]ll natural resources in the soil, the waters and the air space of the country, under the jurisdiction of the Indonesian Republic, as the grant of God Almighty should be dedicated to fulfilling the needs of human life by using, optimising and promoting science and technology".

intellectual products for the greatest benefit of the people should be embodied in a concrete statement. It requires that: (i) any grant, utilisation, and optimisation of information and technology; (ii) any determination and regulation of the legal relationship between individuals and information and technology; and (iii) any regulation and legal relationship between individuals and legal action concerning information and technology, should be dedicated to achieving the greatest degree of benefit for the people.[72]

Various works in the literature (legal, political and economic) show that there are several influential factors in governing information and technology, such as general legal principles (existing at the philosophical level), legal theory, legal dogma, law in practice, the politics of law, power, authority and coercion, and other non-legal elements, such as economic, social, and cultural elements. Every influential legal element contains an interest in constructing the existing IP regime and its implementation, because law emerges from interaction among the legal elements. In this case, each factor has a strong, substantial and interrelated link in producing existing laws. For that reason, every legal element at every stage of the legal endeavour, either at a philosophical, theoretical or practical level, should be devoted to creating justice for the greatest benefit of the people. Those factors which regulate the granting and utilisation of information and technology can be framed as follows:

Legal Framework of the Granting and Utilisation of Information and Technology

72 The consideration of UU No. 18/2002 concerning the National System of Research, Development, and Application of Science and Technology states that: "(1) God Almighty created nature and all internal resources for the welfare of human beings. Those creations should be responsibly managed and optimized through mastering, utilizing, and developing science, and technology; (2) mastering, utilizing, optimizing, and developing information, science and technology should be consistent with the ultimate goal of The 1945 Constitution: (i) protecting all Indonesians and its territory; (ii) improving public welfare; (iii) promoting the nations' intelligence; (iv) harmonizing society's life and its environment based on the Pancasila. *See* UU No. 18/2002 (a) and (b).■

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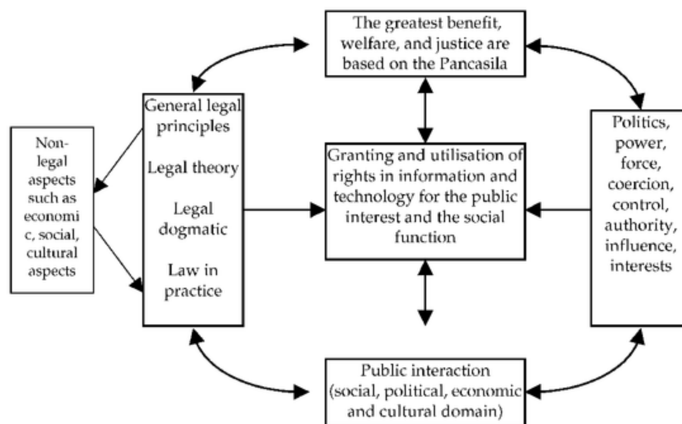

This model proposes that any granting of rights concerning information and technology obliges rights holders to use and optimise them based on the rights and obligations determined by the above factors. The state, through the government, regulates the rights to their access. The regulation is determined by purely legal factors (legal technique) and the influence of non-legal factors, such as economic, social, and cultural elements. Political and coercion factors, in a legal context, also influence the regulation and provision of granting rights in information and technology, as well as their utilisation, and optimisation. Thus, politics, coercion, and rights, taken altogether, form law.[73] Accordingly, law, in practice, should not contradict legal dogma, legal theories and general legal principles. All stages in appreciating law should be devoted to creating social justice towards the greatest benefit of the people.

In this case, the determination of granting rights, *inter alia* rights in information and technology, falls under the state's authority. Through this authority, based on law, the government can create appropriate models for using and optimising them for the greatest benefit of the people. One of the most important governmental obligations is to provide legal protection to the public interest and social function in utilising information and technology. To interpret and elaborate this obligation, the government should consider the main notions in the Preamble to the 1945 Constitution, which provide a fundamental foundation for determining the public interest and social function. This is because, theoretically, the terms (values) of public interest and social function are considered as general legal principles, which stem from the main notions in the Preamble to 1945 Constitution.

73 For a detailed description of the relation between power, coercion, rights and the law, *see* further HOHFELD & HART.

Indeed, the concept of the social function and public interest are universal values, which match Indonesian values. For example, sustainability (*keberlanjutan*), unity (*keutuhan*), harmony (*keserasian, keselarasan*), equality and justice (*keseimbangan, keadilan*), and equity (*kepatutan*). Principally, regarding ideal values, there is no significant difference between the values of the Pancasila (crystallised Indonesian values) and universal values which have been recognised by people all over the globe, such as public interest and social function. Thus, these ideal values should be posited as a basic consideration to implement national development programmes, including the exploitation of IT.

5.3. Towards the Optimisation of Information and Technology

The optimisation of information and technology can be achieved by implementing the sharing of the common good. For this purpose, at a global level, some strategic interrelated steps can be taken in order to create the "common good", i.e. for the South-North flow of information. These include the establishment of a sustainable global knowledge society,[74] and determining how people from the developing world, e.g. Indonesians, are understood and perceived by the North.[75]

At the national level, in order to create the ideal legal framework for managing and optimising intellectual products, i.e. information and technology, the Indonesian government can identify and embody Indonesian laws that link and match universal values into the Indonesian legal system. Implementation can occur through various methods. Several alternative strategies towards the ideal legal framework for utilising information and technology for Indonesian people can be realised by: (i) modifying the significant or essential legal icons and institutions of common law in accordance with the Indonesian legal system; (ii) enacting local laws which contain general legal principles in the existing intellectual property law systems; and (iii) changing the existing intellectual property laws (legal amendments) through *sui generis*, optimising contract law. Next, the substantial reformation should be followed by the creation of an equal distribution of justice in managing information and technology. This goal could be manifested through struc-

74 *See* WEISER, at 3 (2002); *see also* GUTTERMAN, A.S., "The North-South Debate Regarding the Protection of Intellectual Property Rights, 28 Wake Forest 89–139 (1993).

75 It is common knowledge that the current view of the developing world is primarily based on a North-South flow of information. What is needed is a free flow of information between the South and the North that will enhance a mutual understanding. To use the notion by Habermas: a "public sphere" must be created in the world, where people can have the opportunity freely to share ideas and understand one another. Shared information between the South and the North is the core of such a public sphere, and it is therefore an imperative that the South must have a voice to make clear its views. This can only be done when the communication channels are in place to ensure an effective South-North flow of information. *See* HABERMAS, J., "The structural transformation of the public sphere: An inquiry into a category of the bourgeois society", trans. BURGER, T. with the assistance of LAWRENCE, F. Cambridge: Polity.

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tural reformation, for example, preparing appropriate mechanisms for sharing the benefits and establishing a global moratorium institution for managing and distributing sensitive and essential intellectual property to most people.[76]

The above-mentioned ideas can be embodied in various efforts to optimise the production and dissemination of information and technology, for example through fair contracts in technology transfer. At the technical level, for example, the strong legal framework should accommodate and integrate any interests in order to guarantee fair and just transactions for contracting parties. This can be manifested in integrated and planned legal reform, either at the level of substance, structure or the culture of law. At the substance level, the reform of the patent and copyright system and other related pieces of legislation should consider any relevant socioeconomic context because, historically, intellectual property rights – patent and copyright – developed as a response to local needs. Thus, it is wise to formulate the patent and copyright provisions by considering local values. Accordingly, such values can be used to formulate certain provisions in protecting the public interest, the social function, the national interest, and in maintaining a balanced position among contracting parties in optimising the production and dissemination of information and technology, for example, through technology transfer. In this case, the core values of Indonesian laws, such as those on sustainability (*keberlanjutan*), unity (*keutuhan*), harmony (*kehamonisan, keserasian, keselarasan*), equality (*keseimbangan*), and equity (*kepatutan*), may be embodied in related legislation and their implementation regulations, such as the Patent Act, Antitrust Act, Consumer Protection Act, Confidentiality Obligations in Respect of Know-How, Contract Law, the Civil Code, and Investment Law. Even though most provisions of the Indonesian laws are abstract and stem from the ethical domain, theoretically they can be embodied in positive laws. For embodying the concept of wisdom, it is interesting to note the importance of ethics in the law, like Radbruch's illustration in his "Social Theory of Ownership".[77]

At the structural level, the law reform can be directed towards promulgating the provisions in order to develop skilled professional staff and users in society – in both the industrial and commercial spheres. In this case, the

76 For this purpose, the global moratorium institution may be considered a kind of collection society model, patent pool model or clearing house model. On these models *see* VAN OVERWALLE, G., et al., "Model for Facilitating Accessto Patents on Genetic Inventions", Nature Reviews 143–148 (2006); presented and discussed in an Internal Discussion, Centre for Intellectual Property Rights (CIER), Molengraaff Institute for Private Law, Utrecht University, February 2006.

77 Radbruch proposed the social theory of ownership. This theory emphasised the importance of ethical reason which inserts the social function into positive law. *See* RADBRUCH, G., "Grundzuge der Rechsphilosophie, Outlines of Legal Philosophy", trans. WILK, K., in: "The Legal Philosophy of Lask, Radbruch and Dabin", 20th Century Legal Philosophy Series, Vol. IV, (Harvard University Press, Cambridge Mass. 1950).

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Indonesian Patent Act, Indonesian Copyright Act, and other related legislation could be empowered to stimulate improvements in the quality of human resources in Indonesia.[78] Certainly, this effort should be followed by reforming the institutional role and function of the IP regime, and the establishment of supporting institutions (a collecting society for essential IT) in optimising the production and dissemination of information and technology. In this case, we can build a kind of global moratorium institution, which will distribute the essential intellectual products to maintain the sustainability of collective life.[79]

6. *Concluding Remarks*

An absolute exclusive right in intellectual property has the potential danger to create the tragedy of an anti-commons, which may threaten and be detrimental to the sustainability of our collective life. Therefore, the exploitation of exclusive rights should be controlled by an ideal legal framework in order to nurture justice as the basic requirement for creating unity. Consequently, all development programmes, including the optimisation of information and technology either at the national or international level, should be dedicated to maintaining justice.

For resolving the dilemma between economic and public interest, either at the national or international level, it is relevant to adopt Professor Grosheide's idea of the creation of tailor-made copyright law.[80] To manifest the notion, it is necessary to consider the alternative strategies mentioned above in order to create this tailor-made intellectual property law (patent and copyright), particularly in Indonesia. It can be approached with a re-examination and re-evaluation of the exclusive right principle under the intellectual property regime by considering the social function, the public interest and the greatest benefit for humankind.

78 In this case, the substance – provisions or legal norms – of the Patent and Copyright Acts could be used to manifest this purpose. This is because there is no attitude or behaviour of society which is not controlled by a normative institution.

79 The establishment of this institution requires public policy (public participation) to determine the category of and the criterion for essential intellectual products for people's survival. In this case, the institution can hold and manage the intellectual products for the greatest benefit to humankind.

80 In this context, Professor Groseheide offers two options: one is to replace the static uniformity that characterises current national and international copyright law with a dynamic pluriformity, creating the possibility of a tailor-made copyright law; *see* Grosheide, F.W., "Autersrecht op maat", (Deventer, 1986), summary in English, 311–317; Grosheide, F.W., "Copyright and Publishers' Rights: Exploitation of Information by a Proprietary Right", in: Korthals Altes, W.F., et al. (eds.), "Information Law Towards The 21st Century" 295–296 Information Law Series, (Kluwer, 1992).

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