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**ENVIRONMENTAL PROTECTION IN OUTER SPACE: WHERE WE STAND
AND WHAT IS NEEDED TO MAKE PROGRESS WITH REGARD TO THE
PROBLEM OF SPACE DEBRIS**

*Stephan Hobe**

ABSTRACT

This paper provides a brief survey of current space law and its applicability to the problem of space debris. Starting from the definition of space debris, it asks what makes space debris a problem and thus a legal concern. Finally, it assesses the current space law framework with regard to legal rights and obligations to take preventive measures that address the risks posed by space debris; and the legal consequences in case such a risk materializes.

When assessing the applicability of space law to the problem of space debris, it does not make sense to jump immediately into the legal framework governing space activities. Space debris are man-made objects in outer space. Fifty years of space flight have left more than 500,000 pieces of so-called debris of sizes bigger than one centimetre in diameter. These pieces of debris are particularly dangerous because no shielding against them is possible. They can, therefore, destroy larger space objects such as satellites, which makes it necessary to think about this problem. In total, there are approximately 150 million pieces of space debris starting from a size of smaller than one centimetre. We even find such debris in most well-funded orbits for telecommunication, remote sensing, navigation and for the international space station.

While assessing the international legal order relating to debris, several questions arise:

1. What does current international law have to say about space debris? Does it address the problem at all?
2. Do we have international law for the mitigation of space debris? What about remediation of space debris and liability provisions? Is liability and registration equipped to deal with the problem?

* Director, Institute of Air and Space Law, University of Cologne. This is a written version of a lecture delivered at National Law School of India University, Bangalore on November 10, 2011.

3. Why is it so difficult to arrive at any solution?

With these questions in mind, in the following paper one has to first define what space debris is, then wonder why space debris is a problem, and finally assess how current space law might be applicable in this regard. This is the outline followed in this brief overview, which is neither intended to be exhaustive nor to provide definite conclusions.

I. SPACE DEBRIS – WHAT ARE WE TALKING ABOUT?

The Inter-Agency Space Debris coordination Committee's Space Debris Mitigation Guidelines¹ and the subsequent UN Space Debris Mitigation Guidelines² came up with the first internationally accepted definition of space debris, i.e. "*all man-made objects, including fragments and elements thereof, in Earth orbit or re-entering the atmosphere, that are non-functional.*"

Consequently, debris includes 'things' of all sizes that are the product of human activity and not of natural origin. These 'things' either never were functional or eventually became non-functional. Also, we consider only 'things' that are located in Earth orbit or are re-entering the atmosphere.

These definitional decisions and limitations are made from a technical point of view that identifies a certain hazard to outer space activities and the Earth's surface. The definition is not necessarily imperative from a legal point of view. Instead, one has to illustrate what makes space debris a practical and legal concern.

II. THE PROBLEM – WHY IS SPACE DEBRIS A (LEGAL) CONCERN?

It is not a well-kept secret that the impact of space debris may harm other objects. Although this paper is not primarily concerned with the technical aspects of space debris, it is pointed out that the UN Space Debris Mitigation Guidelines, that provides background information, states that there is a common understanding that "the current space debris environment poses a *risk to spacecraft in Earth orbit...* [and], there is also the *risk of damage on the ground*, if debris survives Earth's atmospheric re-entry."³ (*emphasis supplied*) The rationale of the guidelines

¹ IADC Space Debris Mitigation Guidelines, IADC-O2-01, Revision 1, Sept., 2007, <<http://www.iadc-online.org/>>, no. 3.1.

² UN Space Debris Mitigation Guidelines, Sept. 2007, as annexed to UN doc. A/62/20, Report of the COPUOS o. 1, para. 1.

³ *Id.* at no. 1, para. 1, sent. 1 and 4.

focuses on the potential of space debris “to damage spacecraft, leading to *loss of mission, or loss of life* in the case of manned spacecraft.”⁴

Space debris is considered a problem because of its potential to cause damage on the ground and its potential to damage other spacecrafts that still have a mission to fulfill and are functional. Particular emphasis is placed on the aspect of crew safety. Although the UN guidelines speak of “a prudent and necessary step *towards preserving the outer space environment* for future generations,”⁵ it is debatable whether the preservation of the outer space environment as such in a pristine state without man-made space debris is intended, or whether it should be preserved in a state that is simply safe (enough) for “exploration and use” by future generations. The guidelines indicate that consensus so far only exists with respect to space debris as a problem to spacecraft in Earth orbit and to the ground on Earth. The space debris population and its projected growth in the Earth’s vicinity have alarmed the international community of the space debris problem as a potential hazard for outer space activities and as a potential cause of damage on the ground.

The international legal framework governing space activities will have to be analysed with regard to legal rights and obligation to take preventive measures that address the risks posed by space debris, but also with regard to legal *consequences in case such a risk materializes*. The former deals with prevention and/or minimization of the risk of damaging spacecrafts and causing damage on the ground through space debris as well as preserving the outer space environment *in its own right*. This entails legal questions of a broad spectrum ranging from the legality of generating space debris and obligations to mitigate and remediate the space debris environment to participation in collision avoidance schemes and exchange of data. Moreover, the active removal and possibly recycling of space debris as well as allocation of the financial burden and technology transfer is a concern. The latter primarily raises questions of responsibility and liability for space debris and the allocation of risks.

III. SPACE LAW – APPLICABILITY TO THE SPACE DEBRIS PROBLEM OR ONLY “NEAR MISS”?

International space law so far does not use the term “space debris” – at least if one disregards the body of “soft law” in form of resolutions of the General Assembly of the United Nations or other international documents and declarations. The question is, therefore, whether the current space law applies to aspects of the space debris problem as outlined above.

1. Prevention and minimization of risks posed by space debris

(1) Illegality of generating space debris as such

⁴ *Supra* note 3, at no. 2, para. 1.

⁵ *Supra* note 3, at no. 1, para. 1, sent. 5.

In answering the question as to whether generating space debris is illegal as such, the fundamental freedom of all States to explore and use outer space pursuant to Article I, paragraph 2 of the Outer Space Treaty⁶ features very prominently. Especially in early state practice, the generation of space debris has not been attributed with much legal significance as an often undesired but more or less inevitable by-product of otherwise perfectly legal space activities. The freedom of outer space is, however, not granted unlimitedly, but is subject to various limitations. It is in particular tied to the “benefit and interests of all countries” and international law according to Article I, paragraphs 1 and 2, and Article III, OST. Especially, cases of intentional generation of space debris, possibly but not necessarily as a means of warfare, raise the controversial question of their legality as such. Such activity may not be covered by the freedom to explore and use outer space or may even be specifically prohibited as environmental modification technique by the Environmental Modification Convention⁷ or other international, humanitarian and environmental law.

(2) *Obligation to prevent or at least to minimize the risks related to space debris*

In case the generation of space debris in a given context is not considered illegal *per se*, one may wonder whether international law imposes upon States the obligation to take appropriate measures to prevent the generation of space debris or at least to minimize related risks when conducting activities in outer space. Article IX, sentence 1 OST gains particular importance in this regard by providing that:

In the exploration and use of outer space, including the Moon and other celestial bodies, States Parties to the Treaty shall be guided by the principle of cooperation and mutual assistance and *shall conduct all their activities in outer space, including the Moon and other celestial bodies, with due regard to the corresponding interests of all other States Parties to the Treaty. (emphasis supplied)*

⁶ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 27 Jan. 1967, 610 U.N.T.S. 205 (hereinafter “OST”).

⁷ Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques, 10 Dec. 1976, 1108 U.N.T.S. 151. Article I provides: “Each State Party to this Convention undertakes not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party. ...”; Article II defines: “As used in Article I, the term “environmental modification techniques” refers to any technique for changing -- through the deliberate manipulation of natural processes -- the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space.”

The due regard principle flows from the status of outer space as global commons as a sort of counterbalancing to respective States' freedom to explore and use outer space in community interest. Article IX, sentence 2, OST further stipulates that:

States Parties to the Treaty *shall pursue studies* of outer space, including the Moon and other celestial bodies, *and conduct exploration* of them so as to *avoid their harmful contamination* and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter *and, where necessary, shall adopt appropriate measures for this purpose. (emphasis supplied)*

While the interpretation of “contamination” remains open for debate,⁸ the definitional decision to limit “space debris” to things that are in Earth orbit or re-entering the Earth’s atmosphere might be relevant with respect to the qualification of “harmful”. It is, so far, only in the Earth’s vicinity where these *things* pose a potential risk of damage that is internationally recognized and could thus, be considered as “harmful”.

The legal significance of the codification of general international environmental law in the ILC Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities,⁹ for outer space activities is also worthy of discussion under Article III, OST. Article 3 of the Draft Articles states that “*The State of origin shall take all appropriate measures to prevent significant transboundary harm or at any event to minimize the risk thereof*”.

It is also crucial to examine the relevance of Resolutions of the General Assembly, for example, in adopting the Principles Relevant to the Use of Nuclear Power Source in Outer Space¹⁰ or endorsing the Space Debris Mitigation Guidelines of the COPUOS¹¹, and a web of other international documents such as the IADC Guidelines,¹² the envisaged but yet to be implemented Code of Conduct for Space Activities.¹³ These also include standards such as those of the International Organisation for Standardisation (ISO)¹⁴ for identifying what appropriate

⁸ It is noteworthy that the European Code of Conduct for Space Debris Mitigation, 28 Jun. 2004, explicitly refers to Article IX sent. 2, OST in its introduction.

⁹ International Law Commission, Draft articles on Prevention of Transboundary Harm from Hazardous Activities, (2001), http://untreaty.un.org/ilc/texts/instruments/english/commentaries/9_7_2001.pdf (hereinafter *Draft Articles*).

¹⁰ Principles Relevant to the Use of Nuclear Power Sources in Outer Space, UN GA doc. A/RES/41/65 (1992).

¹¹ UN Space Debris Mitigation Guidelines, *supra* note 2.

¹² *Supra* note 1.

¹³ Council of the European Union, Draft Code of Conduct for outer space activities, approved 8-9 December 2008, online: EU <http://register.consilium.europa.eu/pdf/en/08/st17/st17175.en08.pdf>.

¹⁴ In particular, “Space Systems – Space Debris Mitigation Requirements”, ISO/CD 24113, committee draft approved for registration as draft international standard (9 Mar.2009).

measures “good governance” in the exercise of due diligence required for the conduct of outer space activities.

When addressing the space debris problem as one form of environmental hazard associated with de-orbiting, one also has to assess the legal implications of creating another form of environmental hazard by dumping into the High Sea and/or possibly creating “marine debris”.¹⁵

(3) *Collision avoidance, particularly exchange of data and manoeuvring*

Avoiding collisions among functional objects as well as between functional objects and space debris is essential not only for mission success, crew safety and space security, but also for mitigating the growth of the space debris population. According to Article IV of the Registration Convention¹⁶ State Parties undertake to furnish to the Secretary-General a set of parameters about a space object, which are further harmonized by the related General Assembly resolution.¹⁷ For the purpose of differentiating between close conjunctions and potential collisions, however, the availability of accurate data is crucial. Article IX, sentences 3 and 4, OST contain procedural rights and obligations to enter into consultations in case there is reason to believe that “harmful interference” with outer space activities may occur.

If a State Party to the Treaty has reason to believe that an activity or experiment planned by it or its nationals in outer space, including the Moon and other celestial bodies, *would cause potentially harmful interference with activities of other States Parties* in the peaceful exploration and use of outer space, including the Moon and other celestial bodies, it *shall undertake appropriate international consultations* before proceeding with any such activity or experiment.

A State Party to the Treaty which has reason to believe that an activity or experiment planned by another State Party in outer space, including the Moon and other celestial bodies, would cause potentially harmful interference with activities in the peaceful exploration and use of outer space, including the Moon and other celestial bodies, *may request consultation* concerning the activity or experiment. *(emphasis supplied)*

¹⁵ In particular Article 194 et seq. United Nations Convention on the Law of the Sea, online: UN <http://www.un.org/Depts/los/index.htm>

¹⁶ Convention on the Registration of Objects Launched into Outer Space, 14 Jan., 1975, 1023 U.N.T.S. 15.

¹⁷ Recommendations on Enhancing the Practice of States and International Intergovernmental Organizations in Registering Space Objects, 10 Jan. 2008, UN GA doc. A/RES/62/101.

In line with the ILC Draft Articles on Prevention of Transboundary Harm¹⁸ and the emphasis on cooperation throughout the body of international space law; consultations, notifications and exchange of data for a precise risk assessment are important tools to prevent and minimize risks related to a hazard that has been identified by the international community. Satellite operators in Satellite Orbital Conjunction Reports Assessing Threatening Encounters in Space for Geosynchronous (SOCRATES-GEO) service already practice this exchange of highly accurate data by way of a prototype data center¹⁹ and the draft Code of Conduct for Outer Space Activities puts ample emphasis on notification, registration, information and consultations.²⁰ It will have to be further analyzed how States must endeavour to avoid harmful interference in the form of collisions in case, but limited to the situation if, close conjunction is projected.

(4) *Removal and recycling*

In order to stabilize the space debris environment, it might become or may already be necessary to go beyond “mitigation” and begin with “remediation” through active removal of mass from Earth orbit. While the question of whether a State is obliged to remove “its” space debris is again one of due diligence, the question whether space debris enjoys legal protection from removal or other forms of interference by other States, including manipulating the orbit as a means of collision avoidance as well as recycling, leads to the controversial issue of whether “space debris” can be subsumed under the definition of “space object”. According to Article VIII, OST (and as further concretized by the subsequent Rescue Agreement (RA)²¹ and Registration Convention)²²:

A State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body. Ownership of objects launched into outer space, including objects landed or constructed on a celestial body, and of their component parts, is not affected by their presence in outer space or on a celestial body or by their return to the Earth. Such objects or component parts found beyond the limits of the State Party to the Treaty on whose registry they are carried shall be returned to that State Party, which shall, upon request, furnish identifying data prior to their return. (emphasis supplied)

¹⁸ *Supra* note 9, at Article 4, 8, 9.

¹⁹ SOCRATES-GEO powered by the Center for Space Standards and Innovation, online: CSSI www.centerforspace.com

²⁰ *Supra* note 13, at chapter III.

²¹ Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, 22 Apr., 1 Jan.1968, 672 U.N.T.S. 119.

²² *Supra* note 16.

In absence of a definition of "space object", reference is made to Article I (d) of the Liability Convention²³ and Article I I(c) Registration Convention which stipulate identically that: "The term *space object* includes component parts of a space object as well as its launch vehicle and parts thereof."

Thus, it remains open for discussion as to:

- (a) whether all types of space debris, ranging from intact but non-functional satellites to very small particles, or only certain ones or in fact none, are to be considered space objects and/or (component) parts thereof;
- (b) whether a legal distinction has to be made between valuable/functional spacecrafts and space debris, and how this status is to be determined;
- (c) whether legal protection extends to space debris and what the scope is thereof;
- (d) whether legal protection has to be renounced by the State of registry or whether objective criteria exist in this respect;
- (e) whether transparency on the non-functional status and limiting the legal protection of space debris leads to a privileged position when having to determine whether a State has discharged its obligation to exercise due diligence.

(5) *Allocation of financial burden and technology transfer*

Mitigation and remediation measures including protection of space objects, specific design and operation, manoeuvring for collision avoidance or subsequent disposal, space surveillance to active removal of space debris, are associated with costs and technological know-how and raises issues of cost allocation and technology transfer.

Article VI, OST confirms that States bear international responsibility for "national activities in outer space". Article VII, OST and the Liability Conventions impose liability on the launching state if the damage occurs through a space object. This raises the question, whether the liability system is applicable in case of an accident through a piece of space debris because the identification of such piece of space debris as belonging to a certain launching state. In addition, the "polluter-pays" principle emerges as one of the pillars of general international environmental law, arguably being of relevance for outer space activities pursuant to Article III, OST. Yet, Article I, paragraph 1, OST provides that: "The exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out *for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development*, and shall be the

²³ Convention on International Liability for Damage Caused by Space Objects, 29 Mar. 1972, 961 U.N.T.S. 187.

province of all mankind.” (*emphasis supplied*) The Benefits Declaration²⁴ places particular emphasis on States’ freedom to participate in international cooperation in the exploration and use of outer space for peaceful purposes on an “equitable” and “mutually acceptable basis”. The above indicates that each State individually is burdened with the costs for measures related to *its* space debris and that there is no obligation to transfer technology on unilateral terms.

This allocation of costs, however, does not reflect the community interest in preserving the outer space environment, especially in cases where space debris can no longer be attributed to a certain source. The principle of “common but differentiated responsibility” may guide fair allocation here as well. In absence of schemes that address the distinct degrees of economic or scientific development, efforts to preserve the outer space environment might face the dilemma of being objectively in need of certain minimum measures, but left with a subjectively defined obligation of due diligence that factors in financial and technological resources.

2. Materialization of Risk

Outer space activities are ultra-hazardous. Especially space debris has been recognized by the international community as hazard with a potential to cause damage to other spacecraft and on the ground. It is important to clarify the legal consequences in case these risks materialize.

One major distinction is to be made between cases where a State (or another subject of international law) complies with its international obligations and the risks related to space debris materialize nonetheless; and cases where the State in question is in breach of its international obligations. The former may give rise to international liability under Article VII, OST and Articles II et seq. Liability Convention, whereas the latter may *additionally* entail responsibility for internationally wrongful acts²⁵. It is important to note that international responsibility under Article VI, OST is born for “national activities in outer space” while the matter of international liability is tied to “space objects”. Arguably, only the latter raises the definitional issue of space debris being or not being a “space object”.

Another major distinction is to be drawn depending upon the location where the damage is incurred by a State or its natural or juridical persons: in outer space, air space or on the Earth. As regards risks associated with the atmospheric re-entry of space debris, Article II, Liability Convention might be pertinent, as it provides that “[a] launching State shall be *absolutely liable*

²⁴ Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries, 13 Dec. 1996, UN GA doc. A/RES/51/122 (1996).

²⁵ See International Law Commission, Draft articles on Responsibility of States for Internationally Wrongful Acts (2001), available at http://untreaty.un.org/ilc/texts/instruments/english/draft%20articles/9_6_2001.pdf

to pay compensation for damage caused by its space object on the surface of the Earth or to aircraft in flight.”

Whereas Article II, Liability Convention stipulates absolute liability, liability pursuant to Articles III of the same Convention is based upon fault:

In the event of damage being caused elsewhere than on the surface of the Earth to a space object of one launching State or to persons or property on board such a space object by a space object of another launching State, the latter shall be liable only if the damage is due to its *fault* or the fault of persons for whom it is responsible.

One has to further examine whether “damage” can be inflicted upon the space environment as such or if it becomes only relevant as potential breach of an international obligation due to the increased risk of damage to States.

IV. Conclusion

In conclusion, three questions have been addressed:

Is space debris a legal concern? Yes, it is. The International Community is about to make progress in giving legal answers. With regard to the mitigation of space debris the adoption of the Space Debris Mitigation Guidelines although legally not yet binding is definite progress. Moreover, there is ample evidence that a duty to remediate space debris can be derived from current International Space Law.

This leads to the second question: Are there “close conjunctions” between space debris and current space law? Yes, there are many such close conjunctions. Space law is better equipped than many people think.

Finally the third question: Does space law need clarification and further development to become a fully operational rule-based framework? Here the answer is clear: Space law definitely needs to be clarified in order to be more efficient. However, one must have no illusions. The best space law cannot help improve the situation if the space-faring states do not want help. Therefore any improvement of the legal framework should coincide with the concurring will of space-faring nations to do something about the problems facing them. The problem is serious but it is not too late for solutions with further strengthening of the legal framework.

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THE SPECTRE OF SPECTRUM: PUBLIC INTEREST QUESTIONS AROUND SPECTRUM MANAGEMENT IN INDIA

Danish Sheikh *

ABSTRACT

Public interest in spectrum allocation is not restricted to matters of access, but includes often ignored concerns regarding freedom of speech and expression. Drawing upon the history of media infrastructure cases in India, the author seeks to identify parallels between past cases involving infrastructure for newspapers and broadcasting media, and the present situation with spectrum being licensed for use by mobile service providers. The author also examines the public trust doctrine and its applicability keeping in mind that spectrum may be classified as a natural resource. Differing from the school of thought that believes the market must determine allocation of this natural resource, the author submits that a positioning of spectrum as commons rather than private property, buttressed by the use of open-access technology, is closer to the ideal use of spectrum for the public interest.

I. Introduction

Spectrum is the potential of space to transmit energy. Its importance lies not so much in what it is, but in what it allows us to do. Different forms of radio based communications operate on different bands of spectrum – be it radio, television, cellular telephony or wireless internet.¹ Historically, spectrum has been treated as a scarce resource across the world and subject to strict government regulation.² This scarcity rationale will be brought into question later in the essay.

In India, before the introduction of mobile services, spectrum intended for commercial usage in 800 MHz, 1800 MHz and 1900 MHz was entirely in the control of the national defence force. The utilisation of spectrum for commercial purposes began with the release of a limited amount

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¹ See JENNIFER A. MANNER, SPECTRUM WARS: THE POLICY AND TECHNOLOGY DEBATE (Artech House, 2003).

² EVAN LIGHT, OPEN SPECTRUM FOR DEVELOPMENT: POLICY BRIEF (Association for Progressive Communications 2010).

of spectrum in 1995.³ The history of spectrum management in the country has progressed through varying phases. First, there was the auctioning of very limited amounts of spectrum, keeping in mind the scarcity of spectrum due to non-availability from the department of defence. Next came the phase where licenses were delinked from spectrum allocation. A fixed fee based license could be bought, while start-up spectrum was given to the buyers only as and when available. Following stricter criterion for allocation of spectrum, the next stage found the government using ascending auctions for its 3G services.⁴

Constant turf wars take place between the Telecom Regulatory Authority of India (TRAI) and the Department of Telecommunications. Unlike other telecom regulators, TRAI lacks the power to make spectrum-allocation or assignment decisions. These decisions are made exclusively on behalf of the Central Government by the Wireless Planning and Coordination Wing (WPC) of the Department of Telecommunications. Their turf wars have contributed directly or indirectly to issues like the parsimonious assignment of spectrum to service providers to the extent of affecting operations and quality of service. Further, the WPC has been guilty of using inconsistent procedures in allotting spectrum for similar services.⁵ Varied as the spectrum management policy has been, the principle that governs it – or rather, *should* govern it – is that of public interest. When we look at the broader language of regulation, the public interest questions may be along the lines of whether the public is best served by a large organization accountable to government, or by many entrepreneurial companies accountable to the shareholders; whether the public should be seen as the poorest, least privileged citizens, or as those most likely to generate wealth and advantage from a sophisticated, interconnected telecommunications system?⁶

When it comes to this question of spectrum allocation though, I'd like to maintain the lens of evaluating public interest as that of free speech: what approach is it that best promotes public access to spectrum and consequently free expression?

³ Rohit Prasad and V. Sridhar, *A Critique of Spectrum Management in India*, ECONOMIC AND POLITICAL WEEKLY, available at http://beta.epw.in/static_media/PDF/archives_pdf/2008/09/RPrasad_20Sept08.pdf.

⁴ *Id.*

⁵ VIKRAM RAGHAVAN, COMMUNICATIONS LAW IN INDIA: LEGAL ASPECTS OF TELECOM, BROADCASTING AND CABLE SERVICES (Lexis Nexis Butterworths, 2007).

⁶ Lelia Green, *Communication Policy and Regulation*, in COMMUNICATION, TECHNOLOGY AND SOCIETY, 136 (SAGE Publications Ltd., 2002).

The Supreme Court has attempted to engage with this question in its recent 2G judgment⁷. While a large portion of the clamour around the judgment has focused on the implications of the cancellation of 122 licenses issued after January 2008, it holds important implications for free speech, right to development and infrastructure jurisprudence as well. The Court raises the public interest argument when it comes to the question of the scope of judicial review vis-à-vis fiscal policies of the State. If the policy framed by the State runs counter to the public interest or constitutional principles, the Court may exercise its jurisdiction in the larger public interest.

Before analyzing as to how the Court deals with the public interest question, this essay will look back at free speech jurisprudence around media infrastructure. The 2G judgment articulates the question of spectrum assignment as an access issue, but its obvious implications on free speech require us to locate it within the line of cases dealing with media infrastructure and its relation to the promotion of public interest. Clearly, freedom of speech and expression does not operate in vacuum and it has to be acknowledged that questions of infrastructure play a vital role in creating a healthy ecology of speech. The infrastructure may either be provided by the state or by private players, but in both cases the question of public interest in such infrastructure exceeds the question of private or state ownership.

II. Media Infrastructure Cases

Take for instance the 1962 case of *Sakal Newspapers v. Union of India*⁸, which involved Article 19(1)(a) challenge to a Government order which sought to regulate the number of pages according to the price charged, prescribed the number of supplements to be published and regulate the size and area of advertisements in relation to other matters contained in the newspaper. The government argued that the order was valid since it only regulated the commercial aspects of the newspapers and not dissemination of the news and views by them.

The SC struck down the order holding that the same directly affected the freedom of speech and expression because the right to publish and circulate the publications is inherent in the freedom..

⁷ Centre for Public Interest Litigation and others v. Union of India, (2012) 3 SCC 1.

⁸ Sakal Newspapers v. Union of India AIR 1962 SC 305.

It said that the right of freedom of speech cannot be taken away with the object of placing restrictions on business activities of a citizen:

“It may well be within the power of the State to place, in the interest of the general public, restrictions upon the rights of a citizen to carry on business but it is not open to the State to achieve this object by directly and immediately curtailing any other freedom of that citizen guaranteed by the Constitution and which is not susceptible of abridgement on the same grounds as are set out in Clause (6) of Article 19. Therefore, the right to freedom of speech cannot be taken away with the object of placing restrictions on the business activities of a citizen. Freedom of speech cannot, like the freedom to carry on business, be curtailed in the interest of the general public.”⁹

Again, in *Bennett Coleman and Co. Ltd. v. Union of India*¹⁰, it was the newsprint policy of the Government that came up for scrutiny before the Court. The restrictions here were in the form of a newsprint control order that fixed the maximum number of pages which a paper could be allowed to print on the basis of their reported consumption of the commodity.

In a context of acute shortage, it seemed that the only means available to keep the newspaper industry functioning was to ration the allotment of newsprint. This made it imperative that newspapers publish not more than 10 pages. Of particular significance was the fact that newspapers would not be permitted to reduce circulation to maintain or increase the number of pages. To provide a full day’s complement of news, publishers could rationalise their allocation of space between editorial and advertisement material or maintain profitability by curtailing news coverage to accommodate advertisements.

The government defending its policy before the Court said/argued that it was intended to allow small newspapers to grow and prevent the monopolistic combinations of big newspapers. Holding that the policy was not a reasonable restriction since the newspapers were not allowed the right to circulation or the right of page growth, the Court struck it down.

⁹ *Id* at ¶37.

¹⁰ *Bennett Coleman and Co. Ltd. v. Union of India* AIR 1973 SC 106.

“It cannot be said that the newsprint policy is a reasonable restriction within the ambit of Article 19(2). The newsprint policy abridges the fundamental rights of the petitioners in regard to freedom of speech and expression. The newspapers are allowed their right of circulation. The newspapers are not allowed right of page growth.... Freedom of the press is both qualitative and quantitative. Freedom lies both in circulation and in content.”¹¹

The right to access was articulated in Justice K.K. Mathews’ judgment which recognized the importance of bringing all ideas into the market and that free expression would be “somewhat thin if it can be exercised only on the sufferance of the managers of the leading newspapers”.

In both these cases, the Supreme Court acknowledged the relationship between infrastructure and speech when it held that for the promotion of free speech there have to be venues through which a citizen can propagate these views and the regulation of the commercial aspects of a newspaper cannot impinge on such freedom. In other words, freedom of expression involves the right of access to media space,¹² a requirement that could be met only through the “creation of new opportunities for expression or greater opportunities to small and medium dailies to reach a position of equality with the big ones”. Sukumar Muralidharan notes how the underlying principles in these cases have a certain universality that allows them to be transported to the spectrum debates.¹³ The scarcity argument was invoked for newsprint in the seventies, as it is for the electromagnetic spectrum now.

From the newsprint cases, we come to the mid nineties where the Supreme Court made the famous declaration in *Secretary, Ministry of Information and Broadcasting, Government of India v. Cricket Association of Bengal*¹⁴: Air waves are public property. Significantly, the Court stated that “if the right to free speech and expression includes the right to disseminate information to as wide a section of the population as is possible, the access which enables the right to be so

¹¹ *Id* at ¶82.

¹² See Sukumar Muralidharan, *Broadcast Regulation and Public Right to Know*, 42 (9) ECONOMIC AND POLITICAL WEEKLY, (March 3, 2007).

¹³ *Id.*

¹⁴ *Secretary, Ministry of Information and Broadcasting, Government of India v. Cricket Association of Bengal* AIR 1995 SC 1236.

exercised is an integral part of the right”. There do arise certain internal contradictions in the judgment. For one, there is a diverse idea of the public that it invokes, ranging from the idea of public property to the idea of public interest to the idea of the state as the sole custodian of public interest, creating a language which actual communities could really make use of. The judgment, however, stands as a vital signpost for the emergence of a language of a right to access within the media and broadcast framework. One of the statements made by Justice Savant in this regard is particularly significant, where he categorically rejects the government’s argument that broadcasting media can be subject to additional restrictions because of spectrum scarcity. “The virtues of electronic media cannot become its enemies”, the Court noted, in opposing enlarging restrictions beyond those listed in Article 19(2).

The next section will focus on how the public interest question is located vis-à-vis spectrum, with special reference to the 2G judgment.

III. Public Interest in Spectrum

The National Telecom Policy of 1994¹⁵ was the first major step towards deregulation, liberalization and private sector participation. Amongst the notable objectives of the policy were “affording telecommunication for all and ensuring the availability of telephone on demand” and “providing certain basic telecom services at affordable and reasonable prices to all people covering all villages”. The New Telecom Policy of 1999¹⁶ took these concerns further, aiming to “to make available affordable and effective communications for the citizens, considering access to telecommunications is of utmost importance for achievement of the country’s social and economic goal” and “to provide universal service to all uncovered areas including the rural areas and also provide high level services capable of meeting the needs of the country’s economy by striking a balance between the two”. The need to achieve efficiency and transparency in spectrum management was also encompassed under the policy. The policy on spectrum management further expressed the need for a transparent process of allocation of frequency spectrum for use by a service provider, and one that was, to stress the point, effective and

¹⁵ NATIONAL TELECOM POLICY 1994, *available at* http://www.trai.gov.in/TelecomPolicy_ntp94.asp.

¹⁶ NEW TELECOM POLICY 1999, *available at* http://www.trai.gov.in/TelecomPolicy_ntp99.asp.

efficient. The Draft Telecom Policy of 2011¹⁷ concerns itself with looking into questions of paucity of spectrum, making inroads for spectrum sharing and trading, as well as freeing additional spectrum.

The public interest question becomes a focal point of the 2G judgment. When it comes to the question of scope of judicial review *vis-a-vis* fiscal policies of the State, the Court recalls the principle that when it is clearly demonstrated that the policy framed by the State or its agency/instrumentality and/or its implementation is contrary to public interest or is violative of constitutional principles, it is the duty of the Court to exercise its jurisdiction in larger public interest.

One of the primary issues framed by the Court was whether the Government has the right to alienate, transfer or distribute natural resources/national assets otherwise than by following a fair and transparent method consistent with the fundamentals of the equality clause enshrined in the Constitution. So what is the question of public interest here? The Court elaborates by affirming spectrum within the ambit of the public trust doctrine, then going on to elaborate on the kind of duties placed on the State due to spectrum being a public good. This section will look individually at these two major components of the judgment.

a. Spectrum in the Public Trust

The Court invokes the environmental law doctrine of public trust, situates spectrum as falling within it, and then discusses duties placed on the State in respect of public goods. The public trust doctrine hinges on the idea that certain common properties such as rivers, seashore, forests and the air are held by the Government in trusteeship for the free and unimpeded use of the general public. Under the Roman law, where this doctrine was developed, the resources were owned by no one or by everyone in common. Under the English common law, however, the Sovereign could own these resources but the ownership was limited in nature, the Crown could not grant these properties to private owners if the effect was to interfere with the public interests

¹⁷ DRAFT NATIONAL TELECOM POLICY 2011, *available at* <http://www.dot.gov.in/NTP-2011/NTP2011.htm>.

in navigation or fishing. Resources that were suitable for these uses were deemed to be held by the Crown for the benefit of the public.¹⁸

Joseph Sax, in propounding the Modern Public Trust Doctrine, emphasized two points with respect to the Roman and English doctrines.¹⁹ One, that certain interests such as navigation and fishing, were sought to be preserved for the benefit of the public. Therefore, property used for those purposes was distinguished from general public property which the sovereign could routinely grant to private owners. Second, Sax pointed out that it was never clear as to whether the public had an enforceable right to prevent the infringement of the interests that vested in it in the first place. He outlined three restrictions that the doctrine imposed on governmental authority: that the property held in trust had to be used for a public purpose and be held available for use by the general public; that the property could not be sold, even for a fair cash equivalent; and finally that the property had to be maintained for particular types of uses.

Following its invocation by the Supreme Court in *M.C. Mehta v. Kamal Nath*,²⁰ the doctrine has served as a touchstone to test executive action with a significant environmental impact over the years.²¹ Before the 2G case, it was significantly invoked in the *Reliance* matter,²² where the Court said that gas was an essential natural resource, not owned by either of the two competing public enterprises. The Government held it as a trust for the people, with the constitutional mandate being that natural resources belonged to the people of the country.

b. Distribution of Spectrum

Since natural resources are public goods, it is the doctrine of equality, emerging from the concepts of justice and fairness that must guide the State in determining the actual mechanism for distribution of natural resources. Equality here, maintains the Court, can have two prongs:

¹⁸SHYAM DIVAN AND ARMIN ROSENCRANTZ, ENVIRONMENTAL LAW AND POLICY IN INDIA (Oxford University Press, 2001).

¹⁹ Until it was revived and reinvented by Sax, the doctrine held that some resources, particularly lands beneath navigable waters or washed by the tides, are either inherently the property of the public at large, or are at least subject to a kind of inherent easement for certain public purposes. See Carol M. Rose, *Joseph Sax and the Idea of the Public Trust*, YALE LAW SCHOOL FACULTY SCHOLARSHIP SERIES, http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=2804&context=fss_papers.

²⁰ *M.C. Mehta v. Kamal Nath*, 1997 (1) SCC 388.

²¹ *DIWAN*, *supra* note 18. See also *M.I. Builders Pvt. Ltd. v. Radhey Shyam Sahu*, AIR 1999 SC 2468.

²² *Reliance Natural Resources Ltd. v. Reliance Industries Ltd.*, (2010) 7 SCC 1.

first, that people should be granted equitable access to natural resources and be adequately compensated and *second*, that procedure *vis-à-vis* private parties should be just. The equitable access, according to the Court, the method that would necessarily result in protection of national/public interest, is that of a “duly publicized auction conducted fairly and impartially”.

The following paragraph from the judgment illustrates its solution regarding spectrum distribution that maximizes public interest:

“When it comes to alienation of scarce natural resources like spectrum, it is the burden of the State to ensure that a non-discriminatory method is adopted for distribution and alienation, which would necessarily result in protection of national/public interest. In our view, a duly publicized auction conducted fairly and impartially is perhaps the best method for discharging this burden and the methods like first-come-first-served when used for alienation of natural resources/public property are likely to be misused by unscrupulous people who are only interested in garnering maximum financial benefit and have no respect for constitutional ethos and values. In other words, while transferring or alienating the natural resources, the State is duty bound to adopt the method of auction by giving wide publicity so that all eligible persons can participate in the process.”

The Court thus pushes for spectrum auctions in the public interest – but are they really the best option? This question becomes particularly relevant when we frame the question of public interest as one that might allow for the greatest level of access.

Spectrum auctions might raise money for the national exchequer, but they also inevitably result in companies bearing the burden of massively priced spectrum. The burden for the same is most easily shifted to the consumers. The regime also functions as a barrier to entry for those mid-level companies which might have the most innovative ideas about spectrum usage.²³ Stuart Buck argues that the auction “solution” as governments put it masks an underlying problem –

²³ Stuart Buck, *Replacing Spectrum Auctions with a Spectrum Commons*, 2 STAN. TECH. L. REV. 2 (2002).

that spectrum is misconceived in the first instance as a form of property that necessarily requires individualized allocation.²⁴

Where does a solution lie then?

IV. Towards a Spectrum Commons?

For a long time, the fundamental question of spectrum management has centered around the best usage of a finite and fixed resource. Spectrum was believed to be a limited physical resource that must be regulated to a very high degree in order to ensure that interference between signals doesn't occur. Thus, frequencies are assigned specific uses and overseen closely by national regulators and an international system of governance.²⁵

In academic circles, the first shift from this approach comes with Ronald Coase's critiques in the 1960s, premised on the notion that scarcity was in fact the normal condition of all economic goods, and that markets, not regulation, were the preferred mode of allocating scarce resources.²⁶ The introduction of spectrum auctions was a major step in starting to realize the spectrum-as-property-rights model. In the US in particular, attachment to spectrum auctions developed so quickly that storms of protest arose when the government decided not to auction, but to give away, the spectrum for digital television broadcasts.²⁷ And yet, as noted above, the auction "solution" comes with its own set of problems, particularly if we are contemplating greater access as our standard of public interest.

This is where we come to the radically different approach which came about with the positioning of spectrum as commons: one that regards bandwidth as a common resource that all equipments

²⁴ *Id.*

²⁵ *Supra* note 1.

²⁶ Yochai Benkler, *Some Economics of Wireless Communications*, in RETHINKING RIGHTS AND REGULATIONS: INSTITUTIONAL RESPONSES TO NEW COMMUNICATIONS TECHNOLOGIES, (Cranor and Wilman eds., MIT Press, 2003).

²⁷ Buck, *supra* note 23. See Lawrence Lessig, THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD (Vintage Books, New York, 2002).

can call on, subject to sharing protocols, rather than as a controlled resource that is always under the control of someone, be it a property owner, a government agency, or both.²⁸

With technology changes, approaches to managing the spectrum should change too. To assure broad and egalitarian access to wireless communication, policy makers/users should begin to consider flexible forms of spectrum regulation that will enable the spectrum to be used by everyone to their fullest potential in terms of economic, social and cultural development.²⁹

Current spectrum policy often resorts to hiding behind increasingly obsolete sciences and outdated metaphors. Innovations such as spread spectrum, information theory and most significantly, the internet have served to demonstrate the viability of open standards and decentralization.³⁰ We're increasingly moving towards a system increasingly described as "The Stupid Network" – one with nothing but blank transport in the middle, and intelligent user-controlled endpoints, whose design is guided by plenty, not scarcity, where transport is guided by the needs of the data, not the design assumptions of the network.³¹

As observed above, spectrum management in India features government regulation that entails identifying and fencing off specific frequency bands for the exclusive use of designated persons or entities. Others are forbidden from using these frequencies.³² While the Supreme Court appears to have acknowledged the disputed nature of scarcity – "it is true that with advances in technology, the argument of limited number of frequencies has become weak"³³ - the idea that spectrum is a scarce commodity that must be closely monitored remains the underlying philosophical basis for the spectrum management framework in India.

That being the case, it is important to be clear from what base demands can be made. The commons don't have to be an all or nothing approach – neither is that particularly feasible with present technology. The concern remains that open-access alternatives will increase the cost of

²⁸ *Id.*

²⁹ *Supra* note 2.

³⁰ David Weinberger, *Why Open Spectrum Matters: The End of the Broadcast Nation*, available at http://www.greaterdemocracy.org/framing_openspectrum.html.

³¹ David Isenberg, *Rise of the Stupid Network*, available at <http://www.hyperorg.com/misc/stupidnet.html>.

³² *Supra* note 5.

³³ *Supra* note 14.

assembling the substantial long-term rights to use spectrum for standardized, reliable telecommunication services.³⁴

Selective deregulation of spectrum on the other hand is an important policy initiative that could very feasibly be considered today. The government has notably delicensed the 2.4 Ghz and 5.1 Ghz bands for wireless use in the past,³⁵ with the latest deregulation expected in the case of the 433 Mhz for transmission of information related to utility services.³⁶ If our guiding principle is in fact the goal of equitable access, is it possible that the answer lies in greater deregulation?

The broad market adoption of unlicensed spectrum is documented in Yochai Benkler's study which looked into 8 different wireless markets: mobile broadband; wireless healthcare; smart grid communications; inventory management; access control; mobile payments; fleet management; and secondary markets in spectrum.³⁷ The research showed that unlicensed spectrum applications are dominant in seven out of the eight markets. Findings indicate that 80% of wireless healthcare; 70% percent of smart grid communications; and 40% to 90% of mobile broadband data to smartphones and tablets are operated on unlicensed radio spectrum.³⁸

Liberalization of spectrum usage rights has been on the rise, as documented by a recent Policy Brief of the Centre for Internet and Society.³⁹ Where the United States' Federal Communications Commission has recommended licenses to be as flexible as possible and only restricted on grounds of interference prevention, the United Kingdom's Ofcom has also demonstrated an increasing shift towards a flexible system of spectrum management, with its decision to be neutral in terms of services and technologies in its future spectrum assignments.⁴⁰

³⁴ Timothy J. Brennan, *The Spectrum as Commons: Tomorrow's Vision, Not Today's Prescription*, 41(S2) JOURNAL OF LAW AND ECONOMICS, 791 (October 1998).

³⁵ Khombha Singh, *DoT to delicense extra WiMax bandwidth*, BUSINESS STANDARD, Dec. 25, 2006, available at <http://www.business-standard.com/india/news/dot-to-delicense-extra-wimax-bandwidth/269110/>.

³⁶ *Supra* note 17.

³⁷ Yochai Benkler, *Open Wireless vs. Licensed Spectrum: Evidence from Market Adoption*. BERKMAN CENTER FOR INTERNET AND SOCIETY, available at <http://cyber.law.harvard.edu/node/7211>.

³⁸ *Id.*

³⁹ Satyen Gupta, Sunil Abraham and Yelena Gyulhandanyan, *Unlicensed Spectrum - Policy Brief for Government of India NTP' 11*, available at <http://cis-india.org/telecom/unlicensed-spectrum-policy-brief/unlicensed-spectrum-policy-brief-for-government-of-india-ntp-11>.

⁴⁰ *Id.*

The Draft National Telecom Policy 2011 states that it is needed to identify additional frequency bands periodically, for exempting them from licensing requirements for operation of low power devices for public utility services.⁴¹ It further calls for ensuring adequate availability of spectrum and its allocation in a transparent manner through market related processes and to enact a separate Spectrum Act which inter-alia deals with all issues connected with wireless spectrum) licences and their terms and conditions.⁴²

The future of spectrum management in the country is tied in with the Draft Spectrum Bill. The legislation is a response to the 2G spectrum scandal, and has been prepared by a committee chaired by Justice Shivraj Patil⁴³, who also examined the allocations from 2001 to 2009 and submitted a report to the government on official lapses in spectrum allocation. While ostensibly a move towards public interest based legislation in relation to a 'scarce' national resource, the modality for determining how spectrum is allocated is not considerably different from existing structures and will rely on market based pricing for spectrum. The Bill in its present iteration allows for the setting up of a Spectrum Management Commission and also for spectrum sharing, trading or transfer and places a limit of maximum amount of spectrum allocation for each interested party. It delinks the license to use a portion of spectrum via any technology, from the license to provide a service via such spectrum or the license to possess wireless equipment.

The Bill further allows for reforming of spectrum and places strictures on ineffective utilization. It acknowledges that though spectrum is a scarce resource; new developments in technology (switch over from digital to analog in transmitting and receiving devices) allow for sharing of narrow bands of spectrum as well. Spectrum sharing too will be regulated by the Bill. The Spectrum Management Commission will allocate and re-allocate spectrum, issue time bound and area bound licenses for its use, and also will ensure that no one corporate entity has monopoly over spectrum use. The Bill also refers to any wireless equipment, not differentiating between those that can be used at very low frequencies for wireless networks for domestic or personal use. It is evident that by squeezing the pipe, the state may get inadvertent control over speech,

⁴¹ *Supra* note 17.

⁴² *Supra* note 17.

⁴³ Sandeep Joshi, *National Spectrum Act*, available at <http://www.thehindu.com/news/national/article1688310.ece>.

media and information flows, and hence the need to look at allocation of spectrum as not only an economic or commercial concern, but one that relates to rights of free speech and right to information.

V. Conclusion

The traditional argument around using the framework of property rights to manage spectrum has rested on the pillars that the government needs to create rights to use a particular commodity, and that those rights may then be sold to the highest bidder. But, if it turns out that it is unnecessary in the first place to create that right, and if the sale of that right turns out to be anti-competitive, then it may well be that open spectrum is the way out. The most important issue here is back to that question of necessity: would de-licensing wide swaths of spectrum result in chaotic interference? Or would it tap into the unrealized potential of the market in communication and herald innovation?

It is essential that we pursue the answers to these questions if we are to truly locate the public interest and move towards the highest and most equitable level of access to communication possible. If the answers for now at least tell us that partial deregulation is the answer, then that is the route that needs to be forged down.

In jurisdictions such as the United States and the United Kingdom where open spectrum management has begun to be put into practice, there tends to be both an interest by the regulator and by the government to engage with new technologies and new regulatory frameworks. At the same time, civil society plays a vital role in assuring progress is made and that it is done in the public interest. Open spectrum management is an opportunity to demystify both technology and regulation, to experiment with locally controlled forms of ownership and decision-making and to create communication systems that directly meet local needs and capacities.⁴⁴ It is important that the government move down this route of greater deregulation for the public interest to truly reign paramount and not merely become an empty vessel – the future of free expression is at stake.

⁴⁴*Supra* note 2.

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TRANSFER OF TECHNOLOGY IN INDIA: INTERFACE OF IPRs AND COMPETITION POLICY

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ABSTRACT

Economic growth is increasingly being defined by the ability of a nation to provide an affirmative framework for marketing innovations. The role of the legal system, particularly that of IPRs and the Competition principles, in achieving this framework is extremely significant. In this regard, the author attempts to capture select challenges of multilateral relevance that require to be discussed to suitably enrich the Indian legal context.

Research and development programmes, activities and incentives, are gradually climbing the ladder of strategic importance, both at the firm-level as well as in the policymaking process. Technology-based innovations, and the dynamics of their commercialization, have been subjects of immense interest to entrepreneurs and the business community, government and public institutions, and scholars of economics, management and law. It is indeed an inherently multidisciplinary field, and thereby, also provides a unique insight to the interplay of the working of intellectual property rights (IPRs) and the objectives of the competition law and policy. The objective of this note is to highlight such critical aspects of any typical transactions involving technology transfers, which raise questions on the scope of enforcement of IPRs and the relevance of the applicable principles of competition policy. For the purposes of this note and the discussion hereinafter, the term 'transfer of technology' shall mean – *any form of contractual license, including an assignment, of technology that may or may not be patented, being undertaken to enable and aid the production of goods and/or provision of services, either in the form of a joint collaboration, or for the exclusive use by the licensee.* Therefore, any form of the actual product/service itself being licensed for use or sold is excluded, since it would only

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amount to be classified as a sale, and would be more in the nature of staid consumption without being able to demonstrate the inherent complexities of sharing and application of technological knowledge.

What then is truly at the core of any transfer of technology process is the ‘technical know-how’. It is variously termed as – trade secrets, confidential information, and proprietary knowledge and data. In India, the technical know-how and the confidential data is protected primarily on the basis of contractual relations. Such contracts are executed on the strength of clauses (sometimes detailed enough to occur as separate agreements in themselves) termed as ‘non-disclosure’ and ‘non-compete’, thereby referring to their inherently restrictive nature. For an offence of misappropriation of confidential information, it is also possible go beyond the contractual framework and seek equitable remedies on the basis of tortious principles of liabilities, and sometimes such offences could be grave enough to attract criminal punishments too.

‘Transfer of technology’, a much discussed and debated term, has come to bear the burden of two contentious issues: *one*, the obvious inequality in the relationship between, the developed nations that usually own and license innovative technology on the one hand, and on the other hand the developing and least-developed nations that have an ever growing demand for the widespread beneficial use of such technology; and *two*, it necessarily pits the exploitative potential of IPRs directly against the equitable restraint as advocated by the competition policy.¹ It is in this background that the development and use of innovative technology, especially in the cross-border context, has emerged to be a critical factor in guiding the content and direction of an emerging relationship between IPRs and the competition policy framework.

This note presents two distinct, but common, forms of transfer of technology in the Indian context, which highlight the need to explore the desired reciprocity between enforcement of IPRs and the fulfilment of competition policy objectives. While one instance deals with technology

¹ As commonly understood, IPRs are meant to guarantee a definite form of exclusivity, whereas, the competition regime seeks to focus on an equitable approach to the developmental, structural, and behavioural aspects of the local economy. While IPRs are designed to protect “innovators’ rights”, the competition policy is oriented to promote “competitive markets” and ultimately protect “consumer interests”. Economic development, efficiency, level of market integration, the active involvement of small and medium enterprises (SMEs), are some of the leading factors that constitute the comprehensive analysis required to implement the competition framework in any given context.

being imported into India, the other brings forth the concerns of taking indigenous technological innovations to the market, within India and beyond. As a prelude, it would be helpful to understand the current status in the multilateral framework pertaining to each of the domains relevant to our discussion – IPRs, Competition Law and Policy, and Transfer of Technology.

I. The Multilateral Framework

a) Intellectual Property Rights

IPRs originate within a country, but are recognized and registered across different nations and therefore need to also be enforced globally. However, as a matter of general principle the establishment and enforcement of IPRs are governed only by the legislations applicable within the territory of a country. The first-generation IPRs, namely, *Patents*, *Copyrights*, *Trademarks* and *Industrial Designs*, have been the subject of historical efforts to evolve multilateral frameworks regarding the criteria to recognize and enforce such rights across different countries.² Even the second-generation IPRs, which have come to be widely accepted and established only in the last couple of decades or so, namely, *Geographical Indications*, *Semiconductor Layout Designs*, and the *Plant Varieties Protection*, do not have a uniform legal framework across the world. While there are certain established international agreements and conventions that outline multilateral cooperation on specific forms and processes of IPRs, there is a manifest intention in these agreements not amounting to impose a uniform framework across different countries. Of course, this is to recognize the overarching claim of sovereign autonomy in tailoring the municipal legal regimes (on IPRs) to suit the promotion and protection of national interests. This reality fortifies the character of IPR as a private right bestowed upon an eligible individual/entity for the benefits and to the extent as decided by a particular nation. Therefore, IPR is as effective a right as that which governs any other form of property, to be enforced within the territory of a country.

² In this regard, the prominent international instruments are: Paris Convention for the Protection of Industrial Property, 1883 (the Paris Convention), the Berne Convention for the Protection of Literary and Artistic Works, 1886 (the Berne Convention), the Universal Copyrights Convention, 1952, and the Madrid Agreement concerning the International Registration of Marks, 1891.

IPRs are not only subjected to a plethora of legislations in each and every country, but in addition, to also a number of basic principles that are found in the various international agreements and treaties that are binding on the member countries. The question that arises is how are we to coordinate the different principles and procedures of law, interpretation and enforcement that prevail with respect to each form of IPRs? While understanding the basic and founding principles of forms of IPRs is a challenge in itself, employing such knowledge for strategic benefits and timely enforcement of the rights is an altogether different and an arduous task. It is this politico-legal reality that has also led to the formation of the Agreement on Trade-Related aspects of Intellectual Property Rights (TRIPs) under the aegis of the World Trade Organization (WTO) in 1995.

The formation of TRIPs, in fact even the WTO itself, was faced with much resistance. One of the major grounds of such opposition, as expressed by many in the coalition of developing and least developed countries, was the lack of harmonious understanding on the nature and scope of different forms of IPRs. Firstly, there did not appear to be enough understanding of the issues to negotiate a multilateral framework on trade and IPRs, and secondly, even if there was an initial acceptance of the need for such a framework, it certainly did not merit an inclusion as a WTO agreement with immediate enforceable mechanisms. While there are far too many well documented debatable issues that surrounded the formation of TRIPs, and continue to be relevant in many implementation aspects even today, it must be noted that TRIPs is acknowledged as an international instrument prescribing the 'minimum standards' on IPRs. Its widespread acceptance and implementation could be attributed to primarily two reasons: firstly, it has adopted quite widely from the longstanding international agreements on IPRs, such as the Paris Convention and the Berne Convention; and secondly, TRIPs has certainly benefitted in being enforced as a part of the comprehensive multilateral system of the WTO, whose membership today stands at 156 countries (including its latest entrant, the Russian Federation).

In a sense, led by TRIPs under the WTO regime, IPRs have been an abiding subject of negotiations across various multilateral fora. A testimony of the growing relevance and dynamism of IPRs in shaping international relations, trade and otherwise, is the fact that IPRs

also figure quite significantly in most of the regional, inter-regional, and bilateral investment and trade negotiations and agreements.

b) Competition Law and Policy

The understanding of the term ‘competition’ is invariably grounded in the assessment of the relevant market factors as evident in the local economic conditions. One of the main objectives of a competition authority in a country is to prevent ‘anti-competitive’ business practices and remedy the implications, if any, within its territorial jurisdiction. While there are many complications in defining and identifying such anti-competitive practices, there are many other difficulties – mainly procedural and evidentiary in nature – that affect the working of a typical competition authority. What adds to the burden is the inherent subjectivity involved in ascertaining and applying standards that are based on “economic development of the country”; and relevant to “promote and sustain competition in markets”.

India has recently brought into operation a full-fledged competition law, the Competition Act, 2002, which has also established the Competition Commission of India (CCI). With the legislation becoming fully operational in the last couple of years, the CCI has rightly seized the initiative to put forth the content of a sound and enforceable competition policy in the Indian context.³ It is stated that there are presently over a hundred countries which have a dedicated legislation to govern the implementation of their competition policy.⁴ However, the goals, content and impact of such legislations would definitely vary according to the respective national interests and institutional maturity. Towards overcoming the obvious differences in the legislative and institutional apparatus governing competition policies across the world, there has been a consistent demand from a group of developed nations for a multilateral agreement on international trade related competition issues. Quite expectedly, this initiative was also sought to be discussed as potentially being a part of the WTO framework (also popularly termed as the “Singapore Issues” in the WTO since 1996).

³ The CCI has taken cognizance of more than 170 matters, and also disposed a majority of them, since 2010.

⁴ The use of the term ‘competition policy’ is preferable, even in such instances where a specific law is enacted, since the objectives of any law on competition expressly include, within its interpretative ambit, the social and economic policies of the particular country.

While there are bound to be issues of anti-competitive practices in the context of international trade, many countries, including India, have steadfastly objected to a multilateral framework on competition on the basic ground that it shall eventually supplant the national development agenda that the competition policy intrinsically promotes. Competition policy and its critical role in the development of the economy of a nation has been quite strongly asserted in the international fora, and to a large extent, established too.

c) **Transfer of Technology**

The true essence of technology, across any sector, is defined by its capacity to enable and endow proprietary, commercial and competitive advantage. While IPRs guarantee proprietary rights, the commercial value and competitive advantage are realized through firm-level contractual and licensing options and strategies. However, it is interesting to note that the nature, scope and mode of technology transfer, have also been a significant theme of multilateral negotiations and agreements.⁵ The context is that the developed nations generally are dominant in technology generation and ownership, and that there must be considerable efforts made to incentivize the transfer of such technology to the developing and the least-developed nations. The United Nations and its specific programme on trade, the UN Conference on Trade and Development (UNCTAD), the Organization for Economic Cooperation and Development (OECD), the World Bank, and most significantly, the WTO, are the principal international institutions that have nurtured transfer of technology as part of their agenda. The Draft International Code of Conduct on the Transfer of Technology, which was being negotiated under the aegis of UNCTAD, between 1976 and 1985, seeks to lay emphasis on the ideals of “equitable standards” and “due recognition to special needs of developing countries”. The Preamble of the Draft Code quite even states – “*Convinced*, that an international legally binding instrument is the only form capable of effectively regulating the transfer of technology.”

Despite an elusive consensus on a definite framework, international negotiations on regulating transfer of technology have acknowledged two factual realities. Firstly, that the developed

⁵ There are over seventy-five international legal instruments that contain provisions which govern the process of transfer of technology across borders. Refer, *Compendium of International Arrangements on Transfer of Technology: Selected Instruments*, UNCTAD/ITE/IPC/Misc.5, United Nations publications, 2001.

nations have a considerable stronghold on technology, and the IPR regime has enabled them to seek enforcement of such ownership of innovative technology across the world. Secondly, and perhaps more persuasively, that there is an unprecedented demand, that is considered to be even legitimate in the light of having to cope with the impact of rapid climate change, for the wider transfer and empowered diffusion of technology on beneficial terms in the developing and least developed parts of the world.

The UNCTAD Draft Code (as it stands on 5th June, 1985) refers to the content of ‘technology’ through the definition of the process of ‘transfer of technology’, which states: “*Transfer of technology under this Code is the transfer of systematic knowledge for the manufacture of a product, for the application of a process or for the rendering of a service and does not extend to the transactions involving the mere sale or mere lease of goods.*” (Emphasis added) It is clear from the above definition, as well as the subsequent illustrative list of what nature of arrangements could constitute a sufficient transfer,⁶ that the focus is not on the end product or service, but on the transfer of the body of comprehensive, technical and systematic knowledge that enables not just the production of the intended output, but also a meaningful opportunity to explore any potential for further innovation.

II. Specific Forms of Transfer of Technology in the Indian Context

a) MNC driven transfer of technology

Transfer of technology by a developed country multinational corporation (MNC) to either an industrial cluster, or to a public sector undertaking, or to small and medium enterprises (SMEs) in India is quite archetypical, more so in the recent past with the rising growth of the economy, especially led by the services sector. However, an abiding concern of such transactions of transfer has been the prevalent forms of contractual and operational restrictions that are imposed

⁶ The definition is quoted from the UNCTAD Draft International Code of Conduct on the Transfer of Technology (1985), Chapter 1, Para 1.2. In Para 1.3, there are five illustrative requirements listed as being those that ought to be associated with a typical transaction of transfer of technology. An example is Para 1.3.d, which states “The provision of technological knowledge necessary to acquire, install and use machinery, equipment, intermediate goods and/or raw materials which have been acquired by purchase, lease or other means.”

by the MNCs on the Indian firm. It is well documented that the MNCs have been extensively undertaking restrictive practices as part of the 'foreign collaboration agreements' relied upon by many firms in India to build their technological capabilities. It has also been fairly established that the purported benefits of such foreign collaboration were undone by the severe forms of restrictive practices that were eventually imposed as part of such transactions. In comparison to the firms which were involved in foreign collaboration agreements, it has even been demonstrated that firms relying on indigenous, or government funded, or own limited resources for R&D investments, have fared better in the rate of development and adaptation of products.⁷

A sample of the restrictive conditions imposed in such foreign collaborations consisted of the following nature:⁸ Raw material/machinery, and related resources, is to be imported only from the foreign collaborator; raw material/machinery, and related resources, is to be imported only from the subsidiaries of the foreign collaborator, or any other source as directed by the foreign collaborator; after the expiry of the contract terms, the import of raw materials/machinery is permitted only with the prior permission of the foreign collaborator.

The degree of restrictiveness has only increased over the years. IPRs signify high commercial value, and in any typical license of a patented technology, there is a standard restriction that the licensee is subjected to in the form of a contractual clause to the effect – "*The Licensor does not provide any warranty on the said Patent and the Licensee will have no claim whatsoever against the Licensor for any defect in the patent or otherwise. Under no circumstances shall the Licensee, directly or through any indirect means, challenge the validity of the said patent.*"⁹ While clauses of such nature have been extensively analyzed for their legality, also by the US Supreme Court,¹⁰ on the grounds of 'licensee estoppel', the context of the discussion here is different. The issue of 'restrictive clauses' found in typical technology transfer licenses needs to be evaluated on the implications of inhibiting the freedom of the licensee to explore alternative or improved forms of the licensed technology.

⁷ P.K. Chugan, (1995), Foreign Collaborations and Industrial R and D in Developing Countries – Case of Indian Automobile Ancillary Industry, *Economic and Political Weekly*, August 26, 1995, M-98.

⁸ *Ibid.*, at M-107.

⁹ This is a sample clause constructed with due reference to similar clauses in various kinds of Patent licenses, with a MNC being the Patent holder and an Indian firm being the licensee.

¹⁰ *MedImmune v. Genentech*, 549 U.S. 118 (2007).

In the year 1985, while the UNCTAD initiative towards building an international consensus on transfer of technology was discontinued at the draft stage, China brought into effect a strong protectionist set of Regulations. ‘*The Regulations of the People’s Republic of China Governing Contracts for the Import of Technology*’,¹¹ expressly states that the licensor in a contract of technology import shall have to provide a comprehensive warranty, including to the effect that the licensed technology is “complete, free of error, effective and capable of achieving the agreed technological target.”¹²

It is not the issue here that MNCs are big, and therefore enjoy the economic and competitive business clout to flex their muscles in such instances. Competition law and policy across the world do not endorse the view that ‘being big is in itself bad’. What is worthy of note here is the highly sceptical approach that is evident in the manner a MNC seeks to transfer technology to a recipient in another country. We shall discuss a few ‘unreasonable’ implications of this in Part III.

b) An individual and independent innovator led transfer of technology

India’s economic growth story is incomplete without the mention of its steadily growing community of technology entrepreneurs. Credit must be given to the scores of individual and independent innovators across different regions of the country who, bearing a keen sense of entrepreneurship, strive to discover the innovative potential in the indigenous context. Problem solving aptitude demanded in the regional or local working conditions has increasingly endowed experienced individuals with sufficient motivation to embark upon the risky journey of innovation and entrepreneurship. There are many reasons attributed to the rise in the culture of innovations-led entrepreneurship in the Indian context, including the rapid change in the social and economic profile of the country. An aspect to note in this regard is also the impact of increased exposure to the international business practices and processes. With the ‘opening up of the Indian economy’, popularly associated with the structural reforms introduced in the aftermath

¹¹ 24 I.L.M. 801 (1985) – reprint based on an unofficial translation, *c.f.*, Recent Developments, *Foreign Investment: Foreign Economic Contract Law*, 27 HARV. INTL. L. J. 275 (1986).

¹² Song Huang, *Implied Warranties in a Technology Import Transaction*, <http://www.chinalawandpractice.com/Article/1692232/Channel/9929/Implied-Warranties-in-a-Technology-Import-Transaction.html>

of the 1991 economic crisis, foreign investments and collaborations increased manifold, thereby providing an opportunity for the Indian partners and their affiliates to become aware of such innovation-friendly strategic business models. However, it is quite obvious that most of such foreign collaboration led partnerships were limited in their nature, mainly due to the web of restrictive conditions, imposed either expressly through contracts and specific memoranda, or through restraints in the operational conduct.

While exposure to the so-called ‘best practices’ across the globe have distinct advantages at an individual level, the lack of a mature policy and institutional environment severely constrain any potential for growth and innovation. Without going into any general discussion on the necessary conditions to orient the Indian business climate towards more innovations, the focus needs to be steered in the direction of what are the policy and legal initiatives available for those who do manage to innovate. Independent innovators, a term used to refer to those who are not employed with or mainly dependent on the resources of a corporate entity, are entirely on their own to further the commercial interests of their innovations. There are multiple forms of assistance required at the stage when an independent innovator is poised to market the innovation – technology-based support, evaluation and assistance, seed financing on sufficiently flexible terms, protection of data exclusivity and competitive advantage through appropriate legal and contractual measures, and facilitation of the process of commercialization. Especially in the context of India, where the governance in the regional States determine the policy ecosystem on any given issue, multiple factors that are critical need to be replicated across the country for creating the favourable climate for entrepreneurship.¹³

Owing to an apparent lack of technology transfer expertise or presence of any support mechanisms in this regard, there are many bright independent innovators who are failing to get the deserving attention and response for their efforts towards commercialization.¹⁴ A typical such instance is being reproduced here to highlight the serious concerns in this regard: “Y, a young

¹³ Some of the widely discussed factors in the Indian context are: Adequate and well directed R&D incentives; Intellectual Property protection and enforcement; Training and capacity building; Infrastructure; and Social and cultural support mechanisms.

¹⁴ According to the information provided by the Brain League IP Services, there are many such clients who are unable to proceed to commercialize their ‘strongly patentable’ ideas owing to lack of ready and effective ‘market access’ mechanisms.

independent inventor, developed a data processing unit in computers and embedded systems while he was still pursuing his bachelor's program in engineering. The invention particularly relates to hybrid semiconductor architecture for a processor which reduces power consumption without compromising on performance and a structure permitting high level of modularity to achieve flexibility. Realizing its business value, Y approached the Brain League IP Services and on their suggestion, based on extensive search and patent landscaping, a patent application was filed in India and later followed up with a Patent Cooperation Treaty (PCT) application to keep the opportunities for multiple national filings open. Y was even advised to form a separate private corporate entity with an objective of commercializing the invention. However, it has been over a year and yet there has not been any progress made by Y, neither on procuring funding options for taking this venture forward, nor in commercializing the technology in any manner. Y believes that lack of technology transfer expertise, especially given the niche background of this particular field of technology (design and manufacturing of processors), and the small size of the present business venture are perhaps the most difficult hurdles to overcome.”¹⁵

The concern is two-fold: firstly, the innovation does not have a platform to market its potential to such MNCs and corporate entities that would have the resources to fund the entire commercialization process; and secondly, there would be many SMEs and indigenous and dedicated industry clusters looking out to use such bright innovations, particularly for the reason that they could be licensed at far more economical terms than if they had to approach a MNC for it.

III. Pointers on Select Issues of IPRs and Competition

Given the above two dimensions of transfer of technology process, the following issues assume significance in the Indian context:

a) Recognizing and protecting the ‘intangibility’ in the technology

¹⁵ This instance is based on an interview with Dr. Kalyan C. Kankanala, CEO, the Brain League IP Services.

As stated earlier, the technical know-how is of immense value and assumes critical importance in any process based on ‘systematic knowledge’. The IPRs, in all the various forms, do protect the ‘intangible assets’ in a product and/or a process. However, what is at stake in a typical transfer of technology, which is not patented or protected otherwise by IPRs, is that there is a comprehensive body of associated information that comes along in any such license of technology. Added to this, such a collection of information is, in most instances, easily decipherable by the recipient of the technology. While the IPRs recognize the claimed and depicted ‘uniqueness’ or the ‘creativity’ element, it is the comprehensive body of information and knowledge that would actually endow competitive advantage, derived rightfully from its working experience.

There is an immediate need to recognize the varied forms of such ‘know-how’ and provide a framework that could guarantee the utmost level of legal protection. There has to be a two-pronged approach adopted by the legal framework:

- a. **Typology:** The typology of confidential data and technical know-how needs to be recognized. This is not to make it exhaustive, but to be able objectively assess the relevance of such vastly inclusive definitions. Typically, the term “confidential information” or “confidential data” would be designed to include – any techniques, business processes, configurations, system and network architecture, marketing plans and strategies, analyses, studies, reports, data, computer programs, inventions, strategies, samples, ideas, concepts, designs, specifications, customer or vendor names and lists, financial information, and other technical and business information. This would, of course, also include such information that is claimed as being ‘trade secrets’. Clarity in the legal framework would ensure that the list is kept to the relevant minimum, and also to preclude instances of such confidential information being misappropriated on the weak grounds that the source of such information has not been part of the defined list. Furthermore, there are some noted exceptions to this extensive list of information being classified as confidential. For instance, where the classified information is independently available in public domain, or it is rightfully possessed by a third

party and could be accessed by legal means, or if the information is ‘known’ to the receiving party. The scope of these relative exceptions need to be clearly laid out, since this could also be a source of discontentment, thereby precluding adequate and full disclosure by the entity owning ‘systematic knowledge’ of the licensed technology.

- b. **Inter-party obligations:** While clauses of a license are expected to deal fairly with the relationship of the parties inter-se, there are a few obligations that the legal framework could inject objectivity into. For instance, a standard clause that is found in any form of technology transfer agreement is that the recipient of confidential information agrees that such information shall not be reverse engineered, disassembled or decompiled. While this may appear to be a reasonable expectation, it may not be in consonance with certain statutory exceptions provided for the research and ‘fair use’ of such information, processes and designs that are protected by IPRs.¹⁶ An objective list of ‘permitted actions’ and ‘minimum obligations’ would not only be helpful in making the technology transfer agreements that a more fair and balanced in its effect, but also act as a guide to inform and enable a more reasoned exercise of discretion by the concerned parties.

b) Clarity on ‘Restrictive Business Practices’

No legal system would want to burden the business community and its interests by adopting a highly regulatory approach. Therefore, it is the unenviable responsibility of the competition law regime, and its institutional authorities, to undertake this delicate balance between allowing the business entities to enjoy their realm of decisional and contractual autonomy, while at the same time ensuring that such discretion is not threatening to or resulting in manipulative consequences. The evolving scope of the term ‘restrictive business practices’ reflects the arduous nature of this balancing task. There is an oft-quoted, and conceptually quite well established, economic policy rationale that lowering the barriers to investments, mainly foreign direct

¹⁶ For instance, in India, S.18(3) of the Semiconductor Integrated Circuits Layout-Design Act, 2000.

investments (FDI), would considerably accelerate economic growth in an economy. However, on the other hand, it is indeed possible to leverage the obvious benefits of higher investments, but only if they are made to completely disengage with the usual baggage of restrictive business practices that are found to be associated with any form of such investments, specifically those that are from across the border. Since multilateral decision-making is steadily moving towards a ‘zero-barrier’ regime even on investments, a robust competition regime is imperative for especially a developing and emerging economy like India.¹⁷

The Indian Competition Act, 2002, lays a clear emphasis on the term “an appreciable adverse effect on competition”. One of the forms of agreements that would be considered as ‘anti-competitive’ is which “limits or controls production, supply, markets, technical development, investment or provision of services.”¹⁸ All such agreements shall be *presumed* to have “an appreciable adverse effect on competition”. The proviso to this part of the legislation allows for the rule of “efficiency” to rebut this presumption, however, restricting this allowance to such agreements that are in the nature of a “joint venture”. It is interesting to note that the term “technical development” is not reproduced in the proviso. This would imply that the ‘gateway’ to forge agreements (in the form of joint ventures) on the basis of enhancing efficiency, would still not apply if such agreements are in any manner hindering technical development.

It could be contended that a so-called restrictive business practice could be found to be anti-competitive only if it is unreasonable in its terms. This is borne out of the historical evolution of principles of competition, wherein the essence of an anti-competitive practice is that which is prejudicial to ‘public interest’. This has been subject to much scrutiny and judicial interpretations over the years and across the world. This has led to the formation of the legendary ‘rule of reason’ in competition law, which seeks to exempt certain restrictions on trade on the ground of being ‘reasonable’ in a given context. Though heavily criticized, also for being quite subjective, the ‘rule of reason’ would readily apply to such restrictive practices that are based on the ground

¹⁷ Though, the Agreement on Trade-Related Investment Measures (TRIMs) and the General Agreement on Trade in Services (GATS), are both in operation under the WTO framework, there is still considerable scope of sovereign autonomy to structure investment priorities and policies. The prevalence of several Bilateral Investment Treaties (BITs) is also an evidence of the possible discretionary scope in this regard.

¹⁸ S.3(3)(b) of the Competition Act, 2002.

of protection of IPRs. In the Indian law, the application of this reason is also restrained on the ground of having to qualify as “reasonable conditions”.¹⁹ A point to note over here is the consequence of employing an ‘unreasonable condition’ to protect IPRs in a technology transfer license. Such an unreasonable condition is equated to being a restrictive practice amounting to having “an appreciable adverse effect on competition”. According to an advocacy booklet of the Competition Commission of India, any form of exclusive licensing of IPRs, which is quite common, could also be termed as anti-competitive. The manual also goes on to list about sixteen illustrative practices, which are related to exclusive licensing of IPRs and raise important concerns of competition law.²⁰ For instance – Patent pooling arrangements, restrictions on challenges to IPRs that are part of the licensed technology, any form of “grant-back” provisions, excessive quality controls – are some of the practices that are termed as anti-competitive.

c) Provision of public mechanisms for strategic and technical support

Policies and laws do achieve results in conditions of contextual interpretation and through strict implementation procedures. However, the content of such legal and policy measures are not always founded on experiential lessons in any given context. A comprehensive strategic outlook is vital for any framework of implementation. For instance, most independent inventors are not aware of how to objectively assess the business value of their inventions. This is a process that is inherently multidisciplinary and involves coordination of multiple professionals and their expertise. This is where an intervention by a public authority would add immense value to the processes of –any IPR filings, IPR licensing and enforcement, and specific guidance on transfer of technology related licenses. Technology transfer and commercialization resources and related infrastructure is an important area of public policy across the globe.²¹

Appropriate filing strategies to gain maximum commercial benefits from inventions are not the stated objectives of any legal procedures, or alternatively they do not even form a part of any

¹⁹ S.3(5)(i) of the Competition Act, 2002

²⁰ *Advocacy Booklet on Intellectual Property Rights under the Competition Act, 2002*, Competition Commission of India, found at <http://www.cci.gov.in/images/media/Advocacy/Awareness/IPR.pdf>. Please note the disclaimer that this is a “quick guide” and the views are not to be taken as an official interpretation by the Commission.

²¹ There is a wealth of country-level experiences on providing public systems for facilitating transfer of technology, available for reference at: <http://www.wipo.int/patent-law/en/developments/licensing.html>

relevant policies.²² Given that many inventors are scientific professionals, or public universities, or SME ancillaries operating in a very niche sector, their IP awareness levels are bound to be particularly low and the legal and procedural framework must be suitably fortified to include strategic management and decision-making approaches. In effect, this would bridge the inequitable difference that is obvious in most cross-border licensing of IPRs, thereby building a more competitive business environment.

d) Expectation of an efficient ecosystem

The rapid strides being made in global flow of IPR-based services and products, there are bound to be legitimate expectations of Indian systems of IPRs and their enforcement. The Indian business entities are bound to be severely evaluated on the integrity of protocols on data security and confidentiality requirements. The common concern of IPR licensors, which is simply stated as – “technology transferred, is technology lost!” – must be effectively addressed. It would not be sufficient to examine ‘fairness’ in a technology license, without any reference to the obvious systemic concerns of enforcement.

Multiple stakeholders need to play key roles for an innovation to be successfully commercialized and transferred, and there are formidable policy challenges at each of the various stages that constitute an innovation life cycle. It is imperative for countries like India to formulate clear policies to facilitate this multi-stakeholder process. Such a policy framework must necessarily draw upon the deepening relationship between enforcement of IPRs and application of competition principles across the world.

²² For instance, there is no counseling mechanism available for inventors on the feasibility of international filings in Patents. This is despite the Indian Patent Office being granted the status of an International Search Authority and International Preliminary Examination Authority by the World Intellectual Property Organization (WIPO).

EDITORIAL BOARD NOTES ON CURRENT LEGAL
DEVELOPMENTS**Rules Notified Under the Information Technology Act: A Critique**

Possibly one of the most contentious constitutional issues in the context of fundamental rights today relates to the scope, nature and shape of the constitutional protection afforded to free speech and expression on the internet, as well as the recognition of online privacy rights of citizens.

The Indian Government notified three sets of Rules under the Information Technology Act, 2000 [“Act”] on April 11, 2011:

- Information Technology (Intermediaries Guidelines) Rules, 2011 [*“Intermediary Guidelines”*]
- Information Technology (Guidelines for Cyber Cafe) Rules, 2011 [*“Cyber Café Rules”*]
- Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011 [*“Privacy Rules”*]

Even a cursory reading of the Rules would indicate that they suffer from serious infirmities such as the disregard for principles of nature justice, inconsistencies between the Rules, the Act and other statutes, lack of transparency, vague and open-ended phraseology, and the presumption of illegality of content, to name a few. This is despite affirmation by the Supreme Court of India, albeit in a tangential reference, of the importance of according the internet a higher standard of protection than traditional media, in *Ajay Goswami v. Union of India*.¹ This view was also supported in a Committee Report prepared in connection with a Public Interest

¹ *Ajay Goswami v. Union of India* (2007) 1 SCC 143.

Litigation (PIL) petition taken up by a bench of the Bombay High Court in 2001.² Thus, despite the relative uncertainty, it is clear that Article 19(1)(a) protection extends to communications over the internet and the same standards must be applied to all delegated legislations under the IT Act, including the IT Rules, 2011.

A brief critique of the major implications of each of these sets of rules follows.

I. The Intermediaries Guidelines Rules, 2011

The Intermediaries Guidelines Rules, 2011, enacted under Section 79 of the Act were intended to lay down bright-line rules that intermediaries must follow in order to be exempt from liability in connection with services rendered by them. The rules impose the responsibility of blocking certain kinds of content upon the intermediaries.³

They state that the intermediary, in its agreement with users, shall provide for the prohibition of publication of certain kinds of content. The ‘intermediary’ is broadly defined and encompasses all entities providing internet, telecom, e-mail or blogging services, including cyber cafés.⁴ While the intermediaries are not liable for any content hosted or transmitted through it by a user, they are required to remove unlawful content upon receiving *actual* knowledge, and ensure compliance with due diligence standards.⁵

Crucially, the Rules mandate that the intermediary’s terms of use must prohibit the user from hosting content which satisfies any of the following categories: grossly harmful, harassing, blasphemous, defamatory, obscene, hateful, racially or ethnically objectionable, unlawful in any manner, etc.⁶ This provision imposes unreasonable restrictions on the freedom of speech of the users, guaranteed under Article 19(1)(a) of the Indian Constitution. Significantly, some of the categories of objectionable content specified in the Rules, such as ‘grossly harmful’ or

² Archana Tyagi *et al*, Report of the Committee Appointed by the Bombay High Court in Suo Motu Writ Petition No. 1611 of 2001 to Recommend Measures to Protect and Shield Minors from Pornographic and Obscene Material on the Internet 1 (2002), available at <http://www.cyquator.com/html/vol1.pdf>.

³ C. Roy & H. Kalra, *Rules and Regulations Review: The Information Technology Rules, 2011*, available at <http://www.prsindia.org/billtrack/the-information-technology-rules-2011-1908/>.

⁴ Section 2(i), Intermediaries Guidelines Rules, 2011.

⁵ Section 3(3), Intermediaries Guidelines Rules, 2011.

⁶ Section 3(2), Intermediaries Guidelines Rules, 2011.

‘blasphemous’ are inconsistent with the restrictions specified in Article 19(2). In addition, these categories are also not considered as offences under existing law.⁷

Moreover, the standard of speech regulation prescribed by the Rules is not consistent with other media, such as newspapers and TV. The restrictions on content mandated by the Rules are different from the restrictions under the Norms of Journalistic Conduct issued by the Press Council of India.⁸ For instance, a blasphemous article may be published in a newspaper or covered on television, but not on the internet.

The repercussions on the freedom of speech are exacerbated by the onerous burden imposed on the intermediaries by the Rules. Upon failure to remove the prohibited content, they may be liable for compensation. As several categories such as ‘grossly harmful’ and ‘blasphemous’ are undefined and ambiguous, the intermediaries are left to determine whether the content violates these terms. Indeed, they are likely to block more content than required, in order to minimise the risk of incurring liability. Such a chilling effect may also be seen among users who are the creators and seekers of the expression, which may be adversely impacted by the Rules.⁹

The abovementioned issues would remain merely academic concerns if they did not have any real-world implications. Indeed, there is evidence to show such over-compliance by intermediaries, who, in an effort to avoid liability under these rules by erring on the side of caution, are more eager to take down content than protect free speech and expression on the internet.¹⁰ While the intermediaries are partly at fault (with a few notable exceptions including Twitter and Google in some instances) this problem would not have arisen if the Intermediary Guidelines were drafted with a little more foresight and legal acumen. The Transparency Report prepared and made publicly available by Google also substantiates this practice. The report contains the statistics of requests made by the Indian Government to Google, to take down content it deems objectionable under S.70 of the IT Act, read with the Intermediary Guidelines,

⁷ C. Roy & H. Kalra, *Rules and Regulations Review: The Information Technology Rules, 2011*, available at <http://www.prsindia.org/billtrack/the-information-technology-rules-2011-1908/>.

⁸ Norms of Journalistic Conduct, Press Council of India (2010 edn.), available at <http://presscouncil.nic.in/NORMS-2010.pdf>.

⁹ R. Dhara, *Intermediary Liability in India: Chilling Effects on Free Expression on the Internet*, available at <http://cis-india.org/internet-governance/chilling-effects-on-free-expression-on-internet>.

¹⁰ *Id.*

2011.¹¹ A mere glance at the numbers shows that more than 70% of these requests relate to ‘*government criticism*’, which have nothing whatsoever to do with ‘*drugs*’ or ‘*terrorism*’, as Mr. Sibal argued in the Rajya Sabha in order to defend the necessity to retain the IT Rules in their current form.¹²

More than anything else, these statistics support the view that the IT Rules not only restrict free speech, but also suppress legitimate government criticism in several cases. And therein lies the biggest scourge of the IT Rules – government censorship at the cost of free speech rights on the internet.

Additionally, the Rules infringe the principles of natural justice. Once the intermediary has actual knowledge that prohibited content is being hosted, it is required to initiate action for removal of such content within 36 hours, and may also terminate the concerned user’s access. The Rules encourage privately administered injunctions to censor free expression, without any judicial determination of the complaint. Indeed, the user is not even notified about the take down of his contents. The intermediary is neither required to hear the third party provider of the information before or after the removal of contents, nor under an obligation to provide a reasoned decision for the take down notice.¹³

Unlike the Digital Millennium Copyright Act (DMCA) in the United States, the present Rules do not prescribe a detailed procedure for content removal, thereby obliging intermediaries to comply with take down requests. By mandating immediate removal of content (within 36 hours), the Rules also preclude any investigation of the legitimacy of the complaint. Moreover, the Rules lack recourse mechanisms such as put-back orders which allow restoration of taken-down

¹¹ Google Transparency Report 2011, *available at* <http://www.google.com/transparencyreport/governmentrequests/IN/>

¹² Prachi Shrivastava, *Kapil Sibal & Co. Shoot Down Motion to Kill IT Rules: Cite Terrorism, Drugs, Legally India*, *available at* <http://www.legallyindia.com/Social-lawyers/motion-to-kill-it-rules-defeated#comments>.

¹³ S. Kumar, *Press Release against 2011 IT Rules*, *available at* <http://kafila.org/2012/04/22/press-release-against-it-2011-rules/>.

information, and provision for damages for frivolous take down orders, which are available under the DMCA.¹⁴

The Rules allow for the disclosure of personal information of users to government agencies, without any reference to data protection regulations. This has important repercussions for the right to privacy of such users.

II. Cyber Cafe Rules, 2011

The Cyber Cafe Rules were also notified under Section 79 of the Information Technology Act, 2000, which however pertains only to the liability of intermediaries. They prescribe a legal regime for businesses managing places where internet access is offered to the public in the ordinary course of business. Cyber Cafes have been defined widely, so as to include even airports and coffee shops which provide wi-fi services.¹⁵ The Rules require cyber cafes to maintain a log of user information, as well as internet usage and history records, for a period of one year.¹⁶ The Rules do not specify the details which the log must provide, leaving the choice to the cybercafé owner's discretion. The storage of personal information of minors is particularly violative of the privacy rights of children.¹⁷ Further, the Rules do not provide a mandatory deletion clause to obligate the deletion of personal information from log registers after a period of one year. There is no provision for penalising the cyber cafe owners in case they retain information in excess of the statutory time period or specifications. Similar data retention policies of the European Union have faced criticism for infringement of privacy rights, and have been declared unconstitutional in several nations.

The mandatory storage of history of accessed websites, session times, mail server logs and proxy server logs are a severe intrusion of the users' right to privacy, as it would show the content of the information accessed. The storage of search history for a prolonged one-year period would reveal intrusive details about users' personal lives. It would establish a link between the user and

¹⁴ A. Gupta, *Comments on Information Technology (Due Diligence observed by Intermediaries Guidelines) (Draft) Rules 2011*, available at <http://www.iltb.net/2011/02/comments-on-due-diligence-observed-by-intermediaries-guidelines-2011/>.

¹⁵ Section 2(c), Cyber Café Rules, 2011.

¹⁶ Section 5, Cyber Café Rules, 2011.

¹⁷ Article 16, Convention of the Rights of the Child, 1989.

the content, particularly in respect of sensitive searches, and would violate the *privacy of association* of the users.¹⁸ Indeed, it would provide a freeway for the cyber cafe owners to blackmail the users if the browsing history reveals sensitive or embarrassing content.¹⁹

The Rules also do not prescribe any safeguards for data abuse and misuse. They lack any provision mandating the cyber cafe owner to maintain the logs under utmost conditions of privacy and secrecy, and preventing its disclosure to third parties. There is no reference to any existing data protection regulations in India.

In addition, the Rules require the cyber cafe owners to install commercially available safety and filtering software that restrict access to pornographic and obscene information.²⁰ They are also required to ensure that their equipment is not used for illegal activities.²¹ There is no provision for financial assistance from the government for purchasing such software and equipment. If the intermediary fails to comply with the Rules, it invites liability for actions of its users.²² *First*, the imposition of such onerous economic burden on the intermediary is an indirect prior restraint on the freedom of expression of the *intermediary*.²³ *Secondly*, the measure serves to impose blanket censorship of pornographic content. Crucially, the Madras High Court in *Karthikeyan R. v. Union of India*²⁴ and the Bombay High Court in *Janhit Manch v. Union of India*²⁵ refused to direct the government to take steps to curb internet pornography. It was held that in order to establish the constitutionality of such measures under Article 19(1)(a), a case-by-case analysis is required. The Courts also recognised the ineffectiveness of using filtering software as it often

¹⁸ P. Iyengar, *CIS Para-wise Comments on Cyber Cafe Rules, 2011*, available at <http://cis-india.org/internet-governance/blog/cyber-cafe-rules>. See also *US v Jones*, <http://www.supremecourt.gov/opinions/11pdf/10-1259.pdf>

¹⁹ P. Prakash, *Killing the Internet Softly with its Rules*, available at <http://cis-india.org/internet-governance/blog/killing-the-internet-oped>

²⁰ Section 6(5), Cyber Cafe Rules, 2011.

²¹ Section 6(6), Cyber Café Rules, 2011.

²² Section 79, Information Technology Act, 2000.

²³ P. Breyer, 'Telecommunications Data Retention and Human Rights: The Compatibility of Blanket Traffic Data Retention with the ECHR' (2005) 11(3) ELJ 365, 373; C.S. Yoo, 'Free Speech and the Myth of the Internet as an Unintermediated Experience' (2009) SCHOLARSHIP AT PENN LAW PAPER 289, 8 http://lsr.nellco.org/upenn_wps/289

²⁴ *Karthikeyan R. v. UOI*, available at <http://cis-india.org/internet-governance/resources/r-karthikeyan-v-union-of-india>.

²⁵ *Janhit Manch v. UOI*, available at <http://cis-india.org/internet-governance/resources/janhit-manch-ors.-v-union-of-india>.

leads to filtering of non-pornographic websites.²⁶ Therefore, the Rules violate the freedom of speech and expression of the users and the intermediary.

III. Reasonable Security Practices and Procedures and Sensitive Personal Data and Information Rules, 2011

The Reasonable Security Practices Rules, 2011 were made in exercise of the powers conferred under Section 87(2)(ob) read with Section 43A of the IT Act, which relates to protection of individual data. The Rules establish a legal regime for data protection, in alignment with other data protection regimes, such as Data Protection Act (UK), EU Data Protection Directives 1995 and 2002, GLBA and HIPAA (US) and Information Privacy Principles (Australia). Much like the EU Directives, the Rules create a framework based entirely on the individual's consent, and provide for data access, notification requirement, data retention, and purpose limitation.

The Rules define 'sensitive personal data or information' (SPDI) as information collected, received, stored, transmitted or processed by body corporate or intermediary or any person consisting of password, user details as provided at the time of registration or thereafter, financial information, health-related information, sexual orientation, medical records and biometric information.²⁷ The researcher submits that browsing data, including IP addresses, search logs and geographical data, should be included within this definition, to protect privacy in electronic data, in accordance with EU E-Privacy Directive, 2002.²⁸

A body corporate or individual collecting, receiving, processing, storing, dealing or handling information is required to provide a policy for privacy and disclosure of information. Such policy must be published on the website of the body corporate and must provide clear and accessible statements of its practices and policies, type of personal information collected, purpose of collection and usage, and disclosure of such information.²⁹ The government has clarified that the Rules apply only to companies and persons located in India and companies that collect data

²⁶ *Supra* note 13.

²⁷ Section 3, Reasonable Security Practices and Procedures and Sensitive Personal Data and Information Rules, 2011.

²⁸ Directive 2002/58 on Privacy and Electronic Communications.

²⁹ Section 4, Reasonable Security Practices and Procedures and Sensitive Personal Data and Information Rules, 2011.

directly from the customer.³⁰ Consequently, data collected by companies located outside India is still unprotected. Further, the Rules extend protection to *providers* of such information, which need not include persons who such information *relates* to.³¹ In addition, the Rules can strengthen their object of data protection by imposing a *time-specific* data retention period, accompanied by a mandatory data destruction clause, as compared to the subjective limitation that exists presently.³²

Although the Rules mandate that prior consent of the individual is *sine qua non* for the disclosure of SPDI, it may be shared with government agencies for the purpose and verification of identity, investigation, prevention, prosecution and punishment of offences, upon a written request. A statutory framework governing interception and monitoring of information already exists in the form of the Interception Rules, 2009,³³ which were formed under the constitutional safeguards enunciated under *PUCL v. UOI*.³⁴ There are two primary points of difference: *First*, in contrast to Proviso to Rule 6(1) and (2), the grounds warranting disclosure to government authorities in *PUCL*, Telegraph Rules³⁵ and Interception Rules, 2009 are considerably narrower. For instance, the latter provide for interception or monitoring or decryption of information only when it is necessary or expedient to do in the interest of the sovereignty and integrity of India, defence of India, security of the State, friendly relations with foreign states or public order or for preventing incitement to the commission of any cognizable offence.³⁶ *Secondly*, the Reasonable Security Practices Rules, 2011 lack any requirement to produce a prior judicial or quasi-judicial warrant accompanying government's request for disclosure. In contrast, the Interception Rules, 2009 allow disclosure of information only after an order from a high-level functionary. They also

³⁰ *Clarification on Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011 Under Section 43A of the Information Technology Act, 2000*, available at <http://pib.nic.in/newsite/erelease.aspx?relid=74990>.

³¹ S. Bansal, *Is your data safe?*, available at http://cpadvocates.co.cc/Dynamicimages/260_1_537634712149505378750.pdf.

³² *Comments on Reasonable Security Practices and Procedures and Sensitive Personal Information (Draft) Rules, 2011*, available at <http://www.iltb.net/2011/02/comments-on-reasonable-security-practices-and-procedures-and-sensitive-personal-information-draft-rules-2011/>.

³³ Information Technology (Procedure and Safeguards for Interception, Monitoring and Decryption of Information), 2009

³⁴ *People's Union for Civil Liberties v. Union of India*, 1991 1 SCC 301.

³⁵ Enacted under Section 419A, Telegraph Act

³⁶ *Supra* note 26.

prescribe other procedural safeguards such as a review committee, written order, etc which are missing under the present Rules.³⁷ Moreover, unlike the Interception Rules, 2009 which deal with interception of unclassified real-time information, the Reasonable Security Practices Rules, 2011 regulate disclosure of a greater amount of archived and catalogued *sensitive personal data*, which warrants a greater protection of privacy rights.³⁸

IV. Conclusion

The three sets of IT Rules, 2011 covered in this note have evoked a mixed response from public, industry and academics. The Intermediary Rules have attracted severe criticism on account of the draconic repercussions on free speech. While the Cyber Cafe Rules have been enacted with the object of preventing cyber crime, they impose a heavy burden on the intermediary and cause an indirect restraint on free speech. By mandating retention of personal information, including browsing data, the Rules infringe the right to privacy and cause a chilling effect on the freedom of speech of the users. In contrast, the Reasonable Security Practices Rules hold immense potential for strengthening privacy rights by creating the first data protection regime in India, in line with international standards.

An annulment motion was moved against these rules in the Rajya Sabha.³⁹ One of the most important grounds for the motion, as argued Arun Jaitley, Leader of Opposition in the Rajya Sabha was that the IT Rules extend the restrictions on free speech in a manner impermissible under the Constitution of India.⁴⁰ While the motion to annul the IT Rules introduced in the Rajya Sabha was unceremoniously defeated, a constitutional challenge to the legality of these rules is certainly in the offing, since the Rules fall short of substantial and procedural compliance with Articles 19 and 21 in many aspects.

³⁷ Sections 6 and 7, Information Technology (Procedure and Safeguards for Interception, Monitoring and Decryption of Information), 2009.

³⁸ *Supra* note 26.

³⁹ *Motion in Rajya Sabha to annul rules to control internet content*, available at http://articles.timesofindia.indiatimes.com/2012-05-17/india/31747956_1_motion-intermediaries-guidelines-websites.

⁴⁰ Speech by Shri Arun Jaitley on Rules for Regulation of Social Media & Internet in Rajya Sabha, available at http://www.bjp.org/index.php?option=com_content&view=article&id=7915:speech-shri-arun-jaitley-on-rules-for-regulation-of-social-media-a-internet-in-rajya-sabha&catid=68:press-releases&Itemid=494.

**EDITORIAL BOARD NOTES ON CURRENT LEGAL
DEVELOPMENTS****John Doe Orders and Piracy in India**

The exponential spate in the grant of John Doe (or Ashok Kumar) orders by Indian courts in the last few months has become a source of increasing worry. Most such orders in the recent past have been sought by Bollywood filmmakers who were seeking the immediate relief of blocking websites before a movie release, in order to curb piracy. This note seeks to provide comprehensive overview of John Doe orders and their legal implications, in light of their recent popularity in the Indian context.

I. What is a John Doe Order?

A John Doe order is an ex-parte interim injunction which does not require the defendant to be identified prior to the filing of a law suit. The names 'John Doe' and 'Ashok Kumar' are used to designate unknown defendants in a suit. While ISPs and cable operators are generally impleaded as defendants, the plaintiff is allowed to add parties which are identified as infringers after filing the suit. In order to seek this immediate relief under Order 39 Rules 1 and 2, copyright owners usually plead reasonable anticipation of infringing activity which could cause irreparable financial loss. Unfortunately, the implementation of John Doe orders by ISPs results in the blocking of all websites which are used by users to share content legally. This is primarily due to the wide scope of such orders which creates a 'chilling effect' warranting blanket preventive action.

II. Piracy and John Doe orders

The recent rise in the grant of John Doe orders against ISPs has been in the broader context of combating piracy. Prominently, Reliance Communications blocked access to certain popular file sharing websites such as MegaUpload and FileSonic, after the producers of 'Don 2' approached the Delhi High Court. The same Court also granted a similar relief to Reliance Entertainment to

prevent the illegal broadcast of the streaming of its upcoming film: ‘Bodyguard’, against websites, ISPs and cable operators. Earlier this year in March, 2012, the Madras High Court issued its first-ever John Doe order on being approached by the producers of the Tamil film ‘3’ who claimed apprehension of large scale piracy. The order was passed against 15 ISPs and several un-named John Does who can be identified as parties at a later stage, as and when the Plaintiffs become cognizant of their infringing activities. The Order mandates the ISPs to prevent copyright infringement, indirectly requiring them to police their users’ activities of file sharing. The popularity of these orders stems from the anticipated reduction in economic profits which occur due to piracy. Indeed, the order secured by the producers of the movie ‘Singham’ in Delhi High Court allegedly brought down piracy of the film by 30%. Does this make John Doe orders a viable tool in reducing internet piracy?

III. Blanket implementation

While John Doe orders may seem a reasonably successful way to curb internet piracy, their legal validity rests on uncertain grounds. Admittedly, such orders have perfectly legitimate uses and have been applied successfully across jurisdictions, their implementation in India warrants cause for worry. Unfortunately, ISPs have blocked a mass of file-sharing websites in response to the threat of legal consequences of non-implementation of John Doe orders. Often, such orders granted by Indian Courts are extremely wide in form and scope. The ambiguity creates a chilling effect whereby ISPs impose blanket bans, covering a series of websites which allow legitimate file sharing. Indeed, blocking of an entire website on the ground that it may contain links to some infringing content seems unfair on principle alone. The easiest alternative course of action for the ISPs would be take down the infringing *links* and not potentially infringing websites *as a whole*.

The operative portion of the order of Delhi High Court in the Don 2 case reads thus: “*defendants and other unnamed and undisclosed persons, are restrained from copying, recording or allowing camcording or communicating or making available or distributing, or duplicating, or displaying, or releasing, or showing, or uploading, or downloading, or exhibiting, or playing,*

*and/or defraying the movie 'DON2'".*¹ A close reading of the operative clause does not expressly suggest the need to block the *whole* website as such. The Order prevents the website from 'allowing' or 'making available' the infringing content, which can be effected by taking down the specific links.

The ISPs have been accused of being 'only-too-willing' to comply with the John Doe orders. Do they have any choice in the matter? Admittedly, the ISPs are under a fear of secondary liability for non compliance under the Copyright Act, as was held in *Super Cassettes Industries v. MySpace*.² A possible trigger point for such liability originates may lie in Section 51(a)(ii) for permitting for profit, any place for communication of work. However, liability in such cases will arise *only* if the ISP has knowledge of infringement. Hence, website blocking is a remedy available *only after* such knowledge has been proved on part of the ISP.

IV. Procedural Lapses

The ban on websites as a whole is also questionable in light of the provisions of IT Act. Website blocking as addressed in Information Technology (Procedure and Safeguards for Blocking for Access of Information by Public) Rules, only pertains to Section 69A, and not Section 79. Significantly, many ISPs have considered the website-blocking orders to automatically flow from Section 79, when in fact blocking of content is not envisaged under that provision at all. Interestingly, under Section 79, requests to block websites or specific content have to be made to the Department of Information Technology (DIT) through designated nodal officers. This procedure seems to have been passed by all stakeholders. For instance, in the Don 2 case, the Delhi High Court does not refer to any provisions of the IT Act, leading to the assumption that the copyright owners did not approach the DIT for permission to block websites in their entirety.

A brief overview of John Doe orders unveils the various discrepancies in establishing a jurisprudential and legal basis for its validity. Their recent upsurge in popularity is likely to highlight the severe implications they may have on the freedom of speech and expression of the

¹ Order in Reliance Big Entertainment Pvt. Ltd. v. Multivision Network and Ors., dated Dec. 19, 2011 *available at* http://delhihighcourt.nic.in/dhcqrydisp_o.asp?pn=269404&yr=2011

² *Super Cassettes Industries v. MySpace Inc and Anr.*, MIPR 2011 (2) 303.

users and the websites. Although they may develop as an effective tool in curbing internet privacy, the action of blocking websites presently lies on uncertain grounds.

**EDITORIAL BOARD NOTES ON CURRENT LEGAL
DEVELOPMENTS****India's Tryst With Compulsory Licensing****I. Compulsory licensing under the TRIPS Agreement**

International trade in pharmaceutical products is regulated by the WTO through the Agreement on Trade-Related aspects of Intellectual Property Rights ("TRIPS Agreement").¹ The TRIPS Agreement provides for patent protection of drugs and medicines, thus allowing the patent holder a monopoly over the patented medicine, subject to certain conditions and limitations. In theory, the TRIPS regime provides equally for the protection of various social interests,² and the right to health and healthcare are generally provided internationally.³ In practice, though, the affordability of and access to medicines still remains a concern. A fiery debate has been raging for a while on the excessive protection offered to pharmaceutical patents by the TRIPS regime, owing to which essential medicines and speciality drugs have become increasingly unaffordable, especially in developing nations.

Additionally, it is mentioned in the WTO Declaration on TRIPS and Public Health ("Doha Declaration")⁴ that the WTO recognizes that the provisions of the TRIPS Agreement should not prevent member nations from enforcing measures to protect public health, and its provisions

¹ Agreement on Trade-Related Aspects of Intellectual Property Rights (1994) [hereinafter "TRIPS Agreement"].

² Article 7 of the TRIPS Agreement declares that the protection and enforcement of intellectual property rights must "contribute to the promotion of technological innovation and to the transfer and dissemination of technology... and in a manner conducive to social and economic welfare, and to a balance of rights and obligations." Furthermore, Article 8 states that member nations, in their laws, may adopt measures necessary to protect public health and promote public-interest in sectors vital to their socio-economic development. Thus, the provisions of the TRIPS Agreement imply that public health interests may override patent protection in certain situations.

³ The right to health has been ratified by most countries in the world through the International Covenant on Economic, Social and Cultural Rights (ICESCR), and is further incorporated into international law through many other legally binding documents, including Article 24 of the Convention on the Rights of the Child (CRC), Article 12 of the Convention on the Elimination of Discrimination Against Women (CEDAW), and the Preamble of the constitution of the World Health Organization (WHO). The right to health obviously also incorporates the right to access to essential medicines.

⁴ World Trade Organisation, Declaration on the TRIPS Agreement and Public Health - Ministerial Declaration of 14 November 2001, WT/MIN(01)/DEC/2, 41 I.L.M. 755 (2002).

should be interpreted so as to support the protection of public health and, specifically, promote access to medicines for all. Paragraph 5(a) of the Doha Declaration declares that each provision of the TRIPS Agreement is to be interpreted in light of the object and purpose of the Agreement as mentioned in the principles and objectives,⁵ which are reflected in the Preamble and Articles 7 and 8.

In order to address the issue of affordability of medicines, the object and purpose of the TRIPS Agreement are given effect to by providing for compulsory licensing under Articles 30 and 31 of the Agreement. A compulsory license is “*a statutorily created license that allows certain people (the licensees) to pay a royalty and use an invention (pharmaceutical patent) without the patentee’s permission.*”⁶ This concept has been incorporated in essence from Article 5A(2) of the Paris Convention for the Protection of Industrial Property of 1883, which provides for compulsory licensing “*to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, for example, failure to work.*”⁷

Specifically, Articles 30 and 31 of the TRIPS Agreement together allow for exceptions to the rights of patents by providing for use of the patent without the authorisation of the patent holder. Such provisions authorise member countries to liberally frame substantive grounds in municipal law for the issuance of compulsory licenses. If countries possess the capacity to alternatively produce these pharmaceuticals, these provisions effectively provide developing countries the bargaining power to negotiate price concessions in regard to patented drugs or to issue licenses to produce generic equivalents on the failure of negotiations. This negotiating power is strengthened for countries lacking such production capacity through the Doha Declaration, supplemented by the Waiver Decision of 2003,⁸ as the documents permit the license-issuing

⁵ Ibid at ¶ 5(a).

⁶ BLACK’S LAW DICTIONARY 938 (Bryan A. Garner ed., 8th edn., Thomson West), ‘Compulsory license’.

⁷ Paris Convention for the Protection of Industrial Property, Article 5A(2), Mar. 20, 1883, WO020EN.

⁸ Decision on Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health, August 30, 2003, WTO document IP/C/W/405.

countries to import generic pharmaceuticals produced under compulsory licenses in other countries.

Article 30 of the TRIPS Agreement (1) permits certain “limited exceptions” to patent rights (2) which are not allowed to unreasonably conflict with a normal exploitation of the patent and cannot prejudice the legitimate interests of the patent owner, and must (3) take into account the legitimate interests of third parties. Though this provision is interpreted by some as a justification for authorising generic exports, the WTO report in *Canada - Patent Protection of Pharmaceutical Products*⁹ very narrowly interprets the term “limited exceptions”. Yet, the WTO Ministerial Conference and General Council are not bound by WTO Panel reports, and thus the Doha Declaration and Waiver Decision have an overriding effect.¹⁰

Article 31 authorises a government to issue a compulsory license in favour of the government or a third party to produce generic drugs without the consent of the patent holder in cases of unsuccessful negotiations, and on the basis of certain reasonable commercial terms. It eases the negotiation requirements in cases of national emergency, extreme urgency or non-commercial public use. It also waives the negotiation requirement where the member country predominantly serves the domestic market and the use is aimed to curtail anti-competitive practices. Under the scheme established by the TRIPS Agreement, the Doha Declaration and the Waiver Decision, each member nation is given the right to grant compulsory licenses and establish their own grounds for granting such licenses. In addition, as mandated by Article 31(b), the members are granted the freedom to determine when a “national emergency” or a circumstance of “extreme urgency” has arisen. Additionally, in case of insufficient exploitation or non-exploitation of the patent, a compulsory license can be granted.¹¹

⁹ *Canada - Patent Protection of Pharmaceutical Products*, Report of the WTO Panel, adopted on Apr. 7, 2000 (WT/DS114/R, March 17, 2000).

¹⁰ Frederick M. Abbott, *The Doha Declaration on the TRIPS Agreement and Public Health: Lighting A Dark Corner at the WTO*, 5(2) *JOURNAL OF INTERNATIONAL ECONOMIC LAW* 469, 492 (2002).

¹¹ Article 27.1 of the Agreement stipulates that “patent rights [shall be] enjoyable without discrimination...whether products are imported or locally produced”.

However, invoking this scheme results in complications, which have made compulsory licensing unpopular among patent holders, which tend to be multinational pharmaceutical companies. Apart from the seemingly absolute discretion granted to members to create domestic law defining “national emergenc(ies)” and “situations of extreme urgency”, the specific prerequisites under Articles 31(f) and (b) that generics manufactured under compulsory license should be supplied predominantly in the domestic market or serve a non-commercial public use are vague and open to contention.¹² Such provisions neither specify whether products manufactured under compulsory licensing can be exported to other countries having emergencies, nor do they make a list of non-commercial public uses. Again, the prerequisite under Article 31(h) that the country issuing a compulsory license pays an “adequate remuneration” to the patent holder is not elaborated upon, which may lead to uncertainty and arbitrariness in fixing the royalty to be paid to the patent holder. Owing to such ambiguities, we see numerous disputes being contended before the WTO Dispute Settlement Body and domestic courts.

II. Compulsory Licensing in Domestic Law

Despite these limitations, the concept of compulsory licensing finds support in the domestic laws of most states. Even prior to the Doha Declaration and the Waiver Decision, South Africa had in 1997 amended the Medicines and Related Substances Control Act 1965 to provide compulsory licenses for the production and importation of unlicensed generic HIV/AIDS drugs.¹³ Under British law, the amended Patents Act 1977 lays down the conditions for granting a compulsory license. Apart from reproducing the TRIPS Agreement standards, the Act says that a compulsory license may be issued in case the owner’s failure to license a patent or reasonable terms unfairly prejudices the “establishment or development of commercial or industrial activities in the UK,” and this determination is made by the Comptroller.¹⁴ United States law does not explicitly

¹² Aileen M. McGill, *Compulsory Licensing of Patented Pharmaceuticals: Why a WTO Administrative Body Should Determine What Constitutes a Public Health Crisis Under the Doha Declaration*, 10(1) WAKE FOREST INTELLECTUAL PROPERTY JOURNAL 69 (2009-10).

¹³ Available at http://www.nda.agric.za/doaDev/fisheries/03_areasofwork/Aquaculture/AquaPolGuidLeg/Legislation/MedicinesRelatedSubstancesControlAct101of1965.pdf

¹⁴ § 48A(1)(b)(ii), The Patents Act 1977.

provide for the compulsory licensing of patents, but certain statutory provisions sanction compulsory licensing in order to deal with public health emergencies and curtail anti-competitive practices.¹⁵

Indian law provides for compulsory licensing, for the duration of the patent if necessary, under the Patents Act 1970,¹⁶ and the relevant provision, Section 92, is in consonance with the TRIPS Agreement. The terms “national emergency” and “extreme urgency” are again to be subjectively determined by the relevant government. Additionally, Section 84 of the Indian Patents Act provides that a compulsory license may be granted if the “reasonable requirements of the public” are “unsatisfied” with respect to the patented invention.¹⁷ Essentially, such requirements may not be satisfied if the patent holder imposes unfair license conditions (and encourages anti-competitive activities) or the patent is inadequately worked.¹⁸ The Act also states that the duration of negotiation between the patent holder and government should not exceed six months.¹⁹

With regard to the remuneration payable to the patent holder, the same should be “*reasonable, having regard to the nature of the invention, the expenditure incurred by the patentee in making the invention or in developing it and obtaining a patent...and other relevant factors.*”²⁰ The Controller is also required to provide a “reasonable profit” to the licensee.²¹ Yet, in cases of national emergency and situations of extreme urgency, or in case of public non-commercial use, the Controller is to ensure that pharmaceuticals are available to the public at minimal prices, but the patent holder should still obtain a “reasonable advantage.”²²

III. The *Natco v. Bayer* Decision

¹⁵ Andrea M. Curti, The WTO Dispute Settlement Understanding: An Unlikely Weapon in the Fight Against AIDS, 27 AMERICAN JOURNAL OF LAW & MEDICINE. 469 (2001).

¹⁶ §§ 82- 94, Patents Act, 1970, No. 39 of 1970.

¹⁷ Id. at §§ 84(1)(a), (7).

¹⁸ Id. at §§ 84(1)(b), (c), 84 (7).

¹⁹ Id. at § 84(6), Explanation.

²⁰ Id. at § 90(1).

²¹ Id. at § 89(1)(ii).

²² Id. at § 92(1)(ii).

India's first Compulsory Licensing order was issued in favour of Natco Pharma Ltd ("Applicant") against Bayer Corporation ("Patentee") for the cancer drug Sorafenib, sold under the trade name Nexavar ("Drug")²³ and was passed by the Controller of Patents in early March 2012. The Drug is not a life-saving drug, but a life-extending drug prescribed to patients suffering from kidney and liver cancer. A patent under the Patents Act 1970 had been granted in 2008 to the Patentee, who also held patents for the same Drug in other jurisdictions. The application for a compulsory license under S. 84 of the Patents Act was filed in July 2011.

The Applicant had successfully created a process for the manufacture of the Drug and had received a license for the process from the Drug Controller General of India. Using this process, the Applicants proposed to sell the Drug at 3% of the Patentee's price. The Applicant had requested the Patentee for a voluntary license before filing the application. The mandatory time period of three years from the grant of the Patent had passed. The Drug was sold by the Patentee in India at the cost of approximately Rs. 2,80,000 per month.

The Controller commenced his order by giving a brief background of the concept of compulsory licenses, a nod to the distinction of this being the pioneering order of its sort in India. Reassuring patent-holders that compulsory licenses are not novel, he states such licenses existed even in the 19th century, and were recognised under the Paris Convention of 1883 and are merely a method of ensuring that the patent holder does not use his monopoly to restrict access to the invention. The Controller noted that these are not tools used merely by developing countries.

s. 84 (1) of the Patents Act lists three criteria that must be satisfied before a compulsory license is granted and the order systematically deals with the contentions regarding each criteria.

For the first year after grant of patent, (2008), the Patentee did not import the Drug in the Indian market and minimal amounts, far below the demand and requirement, were imported in the successive years (2009 and 2010). The Drug is not manufactured in the country, despite the Patentee having operational manufacturing plants in the country being used for the manufacture

²³ Compulsory License Application No. 1 of 2011, Application for Compulsory License under Section 84(1) of the Patents Act, 1970 in respect of Patent No. 215758 (March 9, 2012) available at http://www.ipindia.nic.in/ipoNew/compulsory_License_12032012.pdf (last accessed on July 21, 2012) [hereinafter, "Order"].

of other drugs. The Controller thus concludes that availability of the Drug was far below the expected standards. The Controller also took into consideration the fact that the same Drug was being produced and marketed in much higher quantities in other countries.²⁴ Thus accessibility in terms of quantity was restricted in addition to the prohibitive pricing, with less than 1% of the patient population having access to the drugs. A convoluted argument was sought to be made by the Patentee on the question of restricted access on the basis that another Indian drug manufacturer (Cipla) had been illegally infringing their patent by selling generic versions of the Drug, thus providing access to the patients. The Controller rightly dismissed this as a flimsy contention, stating that a source of supply that was being challenged by the Patentee as an illegal infringement in another Indian Court and may terminate anytime on the passing of a Court order could not discharge the burden upon the Patentee to make the invention available.²⁵

The Applicant argued that availability of a drug is not determined solely in terms of number of imported tablets, though those too were abysmal, but also to real accessibility keeping in mind the price of the drug and its affordability. The Patentee, on the other hand, relied upon principles of statutory interpretation to argue that since lack of accessibility and affordability are two separate grounds mentioned under S. 84(1)(a) and (b), the same cannot be conflated.

The Controller also examined in detail the proposal of the Applicant for systematic approaches to determining affordability based on empirical data, such as affordability on the salary of the lowest paid government employee, or the percentage of population that would be pushed below the poverty line if they had to pay for the drug in question.²⁶

The Controller held that the criterion of ‘reasonably affordable price’ under S. 84(1)(b) has to be measured against the purchasing capacity of the public and not the reasonable profits of the patentee.²⁷ The Applicant attempted to address profitability for the Patentee, showing how even when taking into account the estimated development costs for the drugs, it would still be

²⁴ Order, supra note 1, at 23.

²⁵ Order, supra note 1, at 20-21.

²⁶ Order, supra note 1, at 25.

²⁷ Order, supra note 1, at 36.

unfairly over-priced.²⁸ The Patentee countered this by alleging that costs of the Drug help provide funding for further research in other life-saving drugs, and their support services, such as training medical personnel in use of the drugs, or pharmacovigilance.²⁹ Further, the Patentee brought insured patients into the picture as well, but failed to show how an expenditure of nearly 3 lakhs per month would be incurred under any insurance scheme without astronomical premiums, particularly for patients with kidney cancer who would have to renew their insurance schemes annually and may require the Drug for upto five years.³⁰

Another question that faced the Controller in this application was the extent to which a product must be 'worked' to satisfy the provisions of S. 84(1)(c). The Controller held that the requirement of local manufacture was a criterion under the old Act, under the head of 'reasonable requirements of the public' that was suitably amended in 2002 to emphasise on the 'working' of the patent as an independent criterion in the grant of compulsory licenses.³¹ The Controller also relied upon the terms of the TRIPS Agreement and the Paris Convention of 1883, as well as S. 83(b) of the Patents Act, to conclude that mere importation would not amount to working the patent.³² On the other hand, it is interesting to note that the Compulsory License Holder is expressly mandated under S. 90(3) to manufacture the drugs in the country.

Apart from arguing that the S. 84 criteria were not satisfied, there were a few other miscellaneous arguments broached in the application, which were dismissed by the Controller. Rejecting the Patentee's plea for an adjournment under S. 86, the Controller held that such discretionary adjournments would only be granted when it was clear that the Patentee had been deprived of a fair opportunity to work the patent in the first place, and not when the Patentee had wilfully neglected to do so and now wished to delay a compulsory license claim.³³ The Patentee argued that they would classify the public into different segments and then offer the drug at a lower price to the 'deserving' class. This was contested by the Applicant on account of the Controller not having any such powers to classify and the Patentees' proposed classification

²⁸ Order, supra note 1, at 26-27.

²⁹ Order, supra note 1, at 29.

³⁰ Order, supra note 1, at 32.

³¹ Order, supra note 1, at 40.

³² Order, supra note 1, at 42.

³³ Order, supra note 1, at 54.

being arbitrary with no rational basis for determining who constituted the deserving class.³⁴ The Controller did not permit the Patentee to undertake this classification and differential selling, stating the bar under S. 84(6) as the reason why this measure would not be considered for the decision on the instant application.³⁵

Having determined that this was a fit case for the grant of a compulsory license, the terms and conditions of the license were determined by the Controller.³⁶ The Applicants would manufacture the drug in India, and sell it at the agreed price of Rs 74 per tablet, and also distribute it free to 600 needy patients monthly. Further, royalties to the Patentee would be paid at 6% of net sales.³⁷ Failure to sell at the agreed price, or in all states in India or failure to distribute free drugs to needy persons would constitute material breaches of the license.³⁸

IV. Instances of Compulsory Licensing in Other Jurisdictions

The Doha Declaration and the Waiver Decision brought the clarity necessary for the effective issue of compulsory licenses by developing nations. In 2007, Thailand issued two compulsory licenses for HIV/AIDS medication and one for a blood thinner used as heart medication, citing a health emergency as justification. Numerous other pharmaceuticals, not all used to treat life-threatening conditions, were proposed to be licensed, and were licensed subsequently.³⁹ Again, under Article 31 of the TRIPS Agreement, Brazil in the very same year issued a compulsory license for an anti-retroviral medicine produced by Merck.⁴⁰

³⁴ Order, *supra* note 1, at 50

³⁵ Order, *supra* note 1, at 54-55.

³⁶ Order, *supra* note 1, at 55.

³⁷ Order, *supra* note 1, at 55, 60.

³⁸ Order, *supra* note 1, at 57.

³⁹ Stephanie Skees, *Thai-ing Up the TRIPS Agreement: Are Compulsory Licenses the Answer to Thailand's AIDS Epidemic?*, 19 *PACE INTERNATIONAL LAW REVIEW* 233, 235 (2007).

⁴⁰ Frederick M. Abbott & Jerome H. Reichman, *The Doha Round's Public Health Legacy: Strategies for the Production and Diffusion of Patented Medicines Under the Amended TRIPS Provisions*, 10 *JOURNAL OF INTERNATIONAL ECONOMIC LAW* 921, 951 (2007); see also *Efavirenz: Questions About Compulsory Licensing*, Ministry of Health Press Office, Government of Brazil (Apr. 25, 2007), available at <http://www.aids.gov.br/data/Pages/LUMISE77B47C8ITEMID74BBB449C36442B9B92D6ACC1D9DFC21ENIE.htm>.

The first license under the Waiver Decision was granted by Rwanda in 2007, when the country licensed an HIV/AIDS for production in and import from Canada.⁴¹ Since 2001, an increasing number of compulsory licenses has been granted, such as in Egypt in 2002, Zimbabwe, Zambia, Mozambique and Malaysia in 2004, Brazil in 2003 and 2007, Ghana in 2005 and Ecuador in 2010.⁴²

The threat of compulsory licensing also seems to work in negotiating with the patent holder, as in India, Indonesia, Vietnam and South Korea, Roche had to select associates to increase production of Tamiflu during 2003-06.⁴³ Bayer was compelled to reduce the price of Ciprofloxacin under threat of compulsory licensing by the US in 2001.⁴⁴

Despite the EU often opposing the grant of licenses before the WTO Dispute Settlement Body, France incorporated in 2004 an independent system of granting compulsory licenses in the interest of public health and to lower prices of cancer drugs. Belgium, independent of the standards embodied in the TRIPS Agreement, the Doha Declaration and the Waiver Decision adopted a system in 2005, which would allow the grant of compulsory licenses in the interest of public health in general. Italy proceeded to issue compulsory licensed for abuse of dominant position by Glaxo and Merck in 2005 and 2008, as the two companies had not agreed to license certain non-essential medicines.⁴⁵

India too has seen various protracted courtroom battles between generic drug manufacturers and patent holding-multinationals, such as the ones between Roche and Cipla and Natco. With the grant of the compulsory license to Natco giving a clear signal to the industry that the Indian regulators are no longer afraid of taking on patentee holders that ignore the mandate of utilising

⁴¹ Alexandra G. Watson, Do TRIPS' Flexibilities Permit Sufficient Access to Affordable HIV/AIDS Medicines in Developing Countries?, 32 *BOSTON COLLEGE INTERNATIONAL AND COMPARATIVE LAW REVIEW*. 143, 147 (2009).

⁴² Reed Beall and Randall Kuhn, Trends in Compulsory Licensing of Pharmaceuticals Since the Doha Declaration: A Database Analysis, 9(1) *PUBLIC LIBRARY OF SCIENCE (PLOS) MEDICINE* 6 (2012), available at <http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001154>.

⁴³ Jerome H. Reichmann, Compulsory Licensing of Patented Pharmaceutical Inventions: Evaluating the Options, 37(2) *JOURNAL OF LAW AND MEDICAL ETHICS* 247, 252 (2009).

⁴⁴ Thomas F. Mullin, AIDS, Anthrax and Compulsory Licensing: Has the US Learned Anything?, 9 *ILSA Journal of International & Comparative Law* 185 (2002-03).

⁴⁵ *Supra* note 27, at 252, 253.

the invention for the public interest, we can hope to see the onset of another chapter in the story of the Indian pharmaceutical industry and beyond.