

SESSION I: OPEN INNOVATION

PANEL 1. FROM SOFTWARE (OSS) TO DRUG DISCOVERY (OSDD)

The moderator for this session was Mr. Zakir Thomas, an expert in the field of intellectual property rights and open source innovation. He opened the session by briefly speaking about the advent of open innovation and then threw the space open to speakers

Prashanth Sugathan

The first speaker, Prashanth Sugathan, is a practicing lawyer with expertise in technology law, intellectual property law, software and internet domain related issues. Describing himself as an engineer-turned-lawyer, he spoke about the engineering aspect of technological development. He credited Richard Stallman with the founding of the Free Software Movement in 1983 by launching the GNU Project – a mass collaboration free software project which gives computer users the freedom to use, share, and modify it in computing devices. The progress, he said, has been exponential. Nearly everyone uses free software through their Android smartphones. According to reports, 98% of servers run on free and open software. Earlier, the Indian Government had to be brief about the usage and benefits of free software, but now we've come to a stage where the Government mandates it in its Information Technology Policies. As this movement of sharing, building, and contributing gains momentum, it is not just the technology and allied industries that use it, but all industries, academia, government and general population as well.

He opined that there is a strong legal basis for this usage, and that the real open ecosystem rests on law for protection and sustainability. Terming free software as a 'creative' use of copyright, he noted that it is a significant stage of progress from the earlier End-user License Agreements in proprietary software which were encumbered with several restrictions. The

legal system ensures us freedoms which allow us to access source codes, modify, and customize as per needs.

Breakthroughs in technology such as the General Public License are the result of tireless efforts of software developers, which must be protected by the law. He called for law to help not just the free software engineers, but the entire industry which requires cooperation between lawyers and software development, especially with licenses. He said that is the kind of support that organizations such as the Software Freedom Law Center, New Delhi aim to provide to the free software movement. We've experienced the revolutionary growth rate of the sharing economy, with free software being used worldwide. To conclude, he stated that the sharing economy has seen great development with the free software movement, birth of Wikipedia, etc., which has a firm legal basis based on copyright.

Venkatesh Hariharan

Venkatesh Hariharan is an open source software expert involved in the financial inclusion aspect of technology. Mr. Hariharan recalled a conversation with Prof. Deepak Pathak, a professor of Computer Science at IIT-Bombay where he learned that light combat aircrafts were developed as early as in 1996 using similar software. He was fascinated by the idea of collaborating on coding and sharing it without any restrictions, and wished to implement it on a large scale in India. One hurdle he faced was the non-availability of implementation software in Indian languages. The community recognized the need for localisation, which would make technology available in the users' native language. IndLinux was one of the earliest localisation initiatives in India, and subsequently, language support became part of mainstream distributions like Ubuntu, Fedora and Debian, which became available in around 20 Indian languages.

With the help of multiple examples, he explained how Open Source and Free software is crucial for India's political, social, and economic development. The parameters of

affordability and resources for per capita investment in India are much lower than that of US, due to which ideas like computers in every classroom and tablets for every student are not feasible in an environment dominated by proprietary software. He mentioned that an upsetting issue is the constant battle with big companies like Microsoft, which he hadn't fully anticipated. He recalled Microsoft's proposal years ago of a portal for e-governance in India, which could be operated exclusively by them. IndLinux proposed a counter portal which was royalty free and available in perpetuity to all Indians. However, there was a significant power disparity between a group of volunteers championing free software, and an established company like Microsoft in terms of influence.

These battles aside, Mr Hariharan stated that the Government does tend to favour open software, if only for the sheer convenience of accessing records. Open source software allows one to access land records from Akbar's reign almost 400 years ago. Data stored in this format has longevity that is lacked by data stored in proprietary format. Some of the largest government programmes like AADHAR, which is unparalleled in its size, are running on open source software. Mr. Hariharan joked that when the Bombay Stock Exchange, which used a proprietary software called Tandem, was introduced to open software, their only problem was figuring out a way to switch off Tandem. All of the TOP 500 Supercomputers run on open and free software. At this point he quoted a favourite saying by Mark Weiser - *"The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it."*

However, he cautioned that the future cannot be certain while the National IT Policy is still inadequate. He wished that it would reflect the customer's need to have control over his/her data, and accept that it is becoming the fulcrum of decision making through incorporation in all services right from using Maps to book an Uber to payment infrastructure. The Policy

merely advocates maximizing IT in vague terms. Therefore, it needs to be updated to reflect information technology as contextualized in India.

T.S. Balganesh

Dr. T. S. Balganesh is a distinguished scientist at CSIR whose area of expertise includes life sciences and open source drug discovery, and whose work has been instrumental in the development of molecules to combat Tuberculosis. He shared that he was convinced to quit his job at a multinational and join experimental research for the development of TB molecules upon realization that the pharmaceutical model, which suffers from an extremely low return on investment, is not conducive to provide wide access to medicine in India. His experience of open source technology in drug discovery has been largely positive. According to him, the sheer utility of open source is even taken for granted.

Speaking about the progress in drug discovery in four stages, from an era in which it was purely an empirical-driven science to the current scenario where open source innovation is the order of the day, he opined that the ability of researchers to keep up with the increasing complexities of molecules can be attributed to open source innovation which ensures quicker knowledge dissemination and accumulation. The Open Source Drug Discovery platform signifies a big shift in the discovery process from the big pharma mould, and graphs measuring the effectiveness of openness have yielded positive results. Originally proposed as a concept by Prof. Henry Chesbrough, its usefulness to the public and success in market tests is exhibited by an increase in frequency of words such as open innovation, open data, open access, open source in the public discourse.

He shared the story of how sharing research on a public domain actually encourages scientists to research and develop it further and create unique solutions from one prototype. He referred to the case of a young fire-fighter who was dying from a rare form of lung cancer. A chemical probe JQ1 developed at the Dana-Farber Cancer Institute provided

positive results as the tumors began to shrink. Although it was too late to save the firefighter, in a pioneering move, the developers decided to release the compound through an open source model of drug discovery. This decision enabled a raft of patents and clinical trials of a new class of drugs - bromodomain inhibitors.

Thus, open source drug discovery has the potential to greatly accelerate drug development, and improve research activity through collaborative efforts. Although it may cut profitability of big pharma still vying for the era of secrecy, it is the signal of a shift in the dynamics of research in life sciences. He concluded on a positive note, stating that as this arena evolves rapidly, many co-evolving concepts will undergo tectonic shifts.

Antony Taubman

The last panelist was Antony Taubman, the Director of the Intellectual Property Division at the World Trade Organization, and professor at the Australian National University, who could not be present in person and so presented via a pre-recorded video. He discussed the ethics of open source, especially in terms of the WTO as a legal institution. He stressed, in this context, the importance of Article 7 of the TRIPS agreement, and its contribution to technology, innovation, welfare and balance. He took a broad approach to the topic, in terms of the obligations, public policy, life science innovation and distinct ethical framework, as well as the parallel debate to open source on the 'should' basis – is it a better, more efficient way of approaching a broader end?

He concluded that the consequences were not sufficient enough to disband and dismiss the movement. He also believed that there exists a principled approach that depends on the choices made by the right holder; thus, he argued, IP as a legislative policy itself needs to be critiqued. It needs to be determined what is beneficial for public goods and what is not, the range of options available and the exclusive rights that would come into play here. Thus a

more utilitarian form needs focus, and the public domain needs an impetus - and therefore, licensing rather than entitlement should be encouraged.

Finally, the panelists took questions from the audience. The first question was whether, at times, certain things funded by private capital should be patented? The speakers engaged and determined that there was no black and white answer. Yes, one needs to worry about return to investment. Currently, OS models are stopping at a point. In that scenario, the partner has the knowledge of the grades of returns of investment in terms of access. However, there is no way of sidestepping public medical needs and the like. The next question was about the status of financial software, or Bitcoin like block chains. The speakers answered that this was still in early stages in India. They believed that in time, Aadhar and mobiles will become imperative in the financial sector. A question was posed to Mr. Venkatesh regarding the OS movement always entailing a privacy concern, to which he answered that there is indeed a need for India to have good privacy laws, and in the civil society, we have a strong group to ensure civil liberties and prevention of vitiation of consent.

PANEL 2. OPEN STANDARDS AND LICENSING (SEPARATE ISSUES)

Speakers for this session were Rajiv Choudhary, Prof Yogesh Pai, Prof Natasha Nayak, and Navneet Hrishikeshan. The session was moderated by Prof Ramakrishna.

The panel addressed the questions like how IP policies were and are being framed, the competition issues in case of licensing, the disclosure requirements, outcomes of over-disclosure, fixing of royalties, interpretation of the term “fair and reasonable” in the context of FRAND licensing.

Rajiv Choudhary

The first panelist in this session was Rajiv Choudhary, an IP lawyer and an expert in SEPs and FRAND licensing. Mr. Choudhary's presentation was divided into two parts. The first part dealt with the process through which a technology becomes a part of a standard. In order to explain this process, he took the example of a telecommunication standard.

In order to reach a conclusion, the competitors come to a neutral setting to decide which the best technology is. For example, given that spectrum is a scarce resource, at what power level data must be transmitted. Different companies come with different ideas and then vote on what process should be finally followed.

Documents discussed at SSO meetings are public.

In order to get into the market, testing standards are to be met by the device.

After this, he spoke about Open Standards and Innovation.

He suggested that clarity in IP policy and transparency in disclosure requirements are the two concepts which will help propagate a standard further and will lead to wider adoption.

As an example of clarity in IP Policy, he described the Open Interconnect Consortium IP Policy; in determining an appropriate reasonable rate, the Member shall take into account a number of factors including a royalty based on the smallest saleable unit including a Compliant Portion, the technical value of the relevant Necessary Claims, and the overall royalty that could be charged for all Necessary Claims. No member would seek or enforce injunction. These articles would lead to clarity and certainty.

He emphasized on the point of transparency in IP declarations in terms of disclosure requirements. SSOs adopt a general call for IPR during standard setting to ensure that members will know if they have IPR that may cover a proposed technical solution. He gave

the example of IEEE, The IEEE-SA requires a “call for patents” to “occur at every standards-developing meeting” that “inform[s] the participants at a meeting that if any individual believes that Patent Claims might be Essential Patent Claims, that fact should be made known to the entire working group and duly recorded in the minutes of the working group meeting.”

He concluded that there is no one size fits all policy, and that basic clarity on key issues, and self-regulation and transparency in disclosure of IPR should be encouraged.

Yogesh Pai

The second panelist in this session was Yogesh Pai, who is an Assistant Professor at NLU Delhi. Pai’s talk was on the topic “SSO IPR Policies: Towards Open Standards”. He addressed issues such as the meaning of open standards, the value game for market players, and SSO IPR policies.

He argued that there was no consensus on what constituted an open standard.

He explained the five factors which Mutoski in 2011 had put forth, which are (i) “permeability” to stakeholders of the SSO creating the specification, (ii) “transparency” of process, due process and related decision-making concepts at the SSO creating the specification, (iii) “structural attributes” of the SSO creating the specification, (iv) limitations or restrictions on accessibility to the specification (including per copy fees to access the specification) and (v) licensing terms for patent claims that are essential for implementing the specification.

While addressing the question of consensus on open standards he took the example of the European interoperability framework. However, he pointed out that it still leaves the question of whether open standards necessarily needed to be royalty-free unanswered.

He also took the example of Indian Government's Policy on Open Standards in e-Governance (2010), which states that "patent claims necessary to implement the Identified Standard shall be made available on a Royalty-Free basis".

He lamented the lack of consensus on open standards in terms of ownership. He took the example of two contrasting opinions. Lemley in 2002, said that the standards set by SSOs that do not restrict IP rights of patents included in the standard are "closed" rather than open. In 2015, Baron and Spulber stated that "standards created by SSOs as open standards. This is because these standards are commonly available and are not owned by a single firm or a group of firms".

He further addressed the question of "capturing value". Competitors compete so as to capture the value for value created. According to Pai, the entire debate was about capturing future value.

He framed his questions in terms of "but for" worlds: How do RF standards create value? How does FRAND work financially?; Do standards create value for innovation? What is the concentration of RF standards in particular technologies suggest? Do elusive SSO rules harm innovation? Should SSOs have competing policies in IPRs?

Navneet Hrishikesan

The third speaker in this session was Navneet Hrishikesan, who is a Legal Counsel with CISCO. Navneet spoke to the corporate perspective towards SSOs and SEPs. There is a wide divergence, in his opinion, in the general approach companies adopt towards SSO and SEPs, namely driven by whether these companies are making money or not from their traditional business.

According to him, the approach being taken can be categorized into two distinct (though broad) categories – (i) one group of participants involve themselves to help build the

standard as it helps drive the general industry approach to certain technologies (thus helping build a competitive advantage to certain companies – these companies don't necessarily look at the SEPs as a revenue stream); and (ii) a more recent phenomenon, with companies using SEPs as a revenue stream – patent trolls are an example of this, particularly as some patent holders like Nortel have sold a lot of their patents. The second category is a problem and often uses the SSOs and SEPs under them as a mode to make revenue and (often) stop others from using/ developing new technology.

Due largely to the rise of the second category of companies/ trolls, there is a dire need to change/ relook at the role of the SSOs. The need for change can be broadly looked at through three lenses:

(a) Essentiality – i.e. SSOs should do a better job of verifying if a patent is truly essential before categorizing them as such. As an example – the 802.11 IEEE media access control standard (a standard used to set up a WiFi network) has close to 3000 patents which are considered essential. Companies tend to over-disclose to try and control development and hence SSOs should use existing legal regimes including patent offices to ensure that patents are verified as to essentiality, limit over disclosures and where possible enable early declarations to ensure the model is not being subverted. Companies expect SSOs to control the kind of patents that are classified – not just accept everything as being essential.

(b) FRAND licensing – while the industry is generally in favor of a royalty based FRAND Policy. SSOs should take more responsibility to ensure the FRAND requirements are clear and not allow royalty/ licensing requirements to be used as a mode to block usage. Just as an example in one particular case, a patent holder demanded \$2500 per location as a license fee for a patent which was considered essential for a WiFi network and the US District Court finally awarded the patent holder 9.56 cents per

access point. This shows that patent holders often take unreasonable positions with the intent of limiting others from coming into the same business.

- (c) Injunctions - SEP owners should not be allowed to use injunctions if they have agreed to license their SEPs. A good example here is the Open Interconnect Consortium which requires members to agree to not apply for injunctive relief. The courts have taken some good steps in this regard, but one would expect the SSOs to also implement this restriction.

If we don't get the model right, this could have an impact on industries than just the technology/ telecom industry, as concepts like the internet of things and data analytics become more widespread, traditional companies like utility companies are now using some of these SEPs (for example as a part of smart meters which use WiFi). These companies are often not aware of these issues and allowing the SSO/ SEP model to be misused could lead to limiting innovation.

Ultimately, this is a grand bargain and the SSOs need to take the lead in ensuring that the model works well enough to ensure that companies are encouraged to participate in the development of new standards and technologies, while ensuring that the limits and royalties are not so high that it discourages others.

Natasha Nayak

The fourth and final speaker in this panel was Natasha Nayak of Jindal University. She addressed the issue of implications of standardization on competition policies, restrictions in open standards and challenges to competition, mitigating competitive harm of holdups through SSO policies, rules on disclosure and licensing, role of competition agencies.

When companies reach a conclusion on one technology, consumer choice is restricted and the scope of inter-technology competition is limited. This can be good for competition if it is kept at optimal levels, but the caveat is that the standard should be widely adopted.

Restrictions on open standards can happen at two levels, firstly, at adoption of standards: access to standard setting process and secondly, at availability of standards: access to resulting standard. Restriction on access at the time of adoption has the potential to exclude potential technology providers distorting competition at the technology market.

While talking about “Hold Ups and SSO rules in mitigation (ex ante regulation)”, she said that hold ups are a major competition concern and call for competition regulatory scrutiny in standardization. Attempts to extract royalties in excess of ex ante value once market is locked in and standardization has elevated a technology above the competitors.

When a company fails to disclose patent interest during standard setting and later alleges infringement once the standard is implemented and they acquire monopoly power as a result. The fundamental driver of disclosure rules was to ensure that market players make informed decisions. The empirical evidence shows that the disclosure count has steadily increased since 1990.

According to her, loosely defined FRAND policies of the SSOs are the cause for hold ups and royalty stacking. According to her for competition, royalty free system works the best.

She concluded that standardization reaps great social benefits, if standards are open and markets are competitive. There is need to balance the pro-competitive and anti-competitive aspects of standardization. Ex-post regulations should be the last resort. Ex-ante regulation by SSO can help in providing open standards.

PANEL 3. COMPULSORY LICENSING AND A COMPENSATORY COMMONS

This panel was moderated by Prof. Shamnad Basheer, the Founder of SpicyIP and IDIA, who started off by discussing how, as we move from a tightly knit innovation ecosystem to a more splintered one, exclusivity becomes a thing of the past. It is in this context that the issue of compulsory licensing and compensatory commons becomes important.

Prof. Basheer said that the consensus seems to be that we should allow the market to decide - studies, at any rate, seem to be agnostic. He said we should at least allow ourselves to be open to an idea wherein we don't necessarily hold back the flow of information. Just as high seas should be open to all, 'mare liberum', information and knowledge flows the same way water does and therefore should be allowed to flow. Exclusivity is a thing of the past that will and should disappear. No industry has ever sunk due to compulsory licensing – let us not shy away from them.

Srividya Ragavan

With this, Prof. Basheer introduced began the discussions by introducing the first speaker, Prof. Ragavan. Prof. Ragavan started by outlining how compulsory licenses in effect forces patent holders to give up a degree of monopoly and thus, represents an intrusion into the monopoly rights. However, due to the nature of access created on account of such licensing, the end-consumer ends up paying less than what he or she would have otherwise.

Ragavan discussed the historical context of compulsory licensing, stating that the market then was conceived very differently during the time when compulsory licensing was conceptualised. Basically, the market during that time was confined to national markets. Hence, the western conception of intellectual property focussed on incentivization and limiting intrusion into granted patent monopolies. Now, of course, markets are global which allows patent owners a much bigger turf to exploit and earn from. She said that now we

realise that the market is significantly more international and the patent holder is not limited to a specific country. Moreover, she said, sustainability has become an important and definitional paradigm of trade and development. Consequentially, development per se is no longer enough in and of itself. She strongly believes that innovation leads to development and that development must be sustainable.

All this combines to give increasing credence to the public goods doctrine - access to public goods, medication, food etc. which in turn, feeds into development - along with a robust growth of public goods. The exclusivity doctrine is firmly couched on the objective of societal benefit. Thus, the exclusivity doctrine diminishes in value when the ideology of patents prevents human-being from access to products such as life-saving medications. Compulsory licensing, she said, has therefore become increasingly prominent. She said that there is much hesitancy to use the doctrine, however, because it has become the subject of much debate on the question of whether the use of compulsory licensing results in weakening the monopolies of patent holders and their exclusivity. Ragavan highlighted that we must examine why compulsory licensing is relevant to the question of access, particularly in the Indian context. The question of whether and to what extent compulsory licenses can be used became important after India decided to compulsorily license one of Bayer's drug taking into account the cost of the drug itself. Despite the severe objections, the US is not bereft of the provisions on compulsory licensing. There are provisions to provide for compulsorily licensing a patent in statutes such as the Clean Air Act, Title 28 etc. She then gave the example of Columbia where an attempt to compulsorily license imatinib given its impossibly high prices was met with severe objections from the USTR causing some House Democrats to outline the WTO derived flexibility that Columbia had to preserve public health conditions. She then cited the Doha Declaration which allowed governments to compulsorily license drugs when there is a threat to public health and that national governments should be able to determine when and if compulsory licensing can be used.

She highlighted how the US intervention in Columbia was concerning to the extent that US is basically threatening to withdraw its previous commitment to provide \$450 million to aid peace talks between the Colombian government and the Revolutionary Armed Forces of Colombia, Referring back to the role of the USTR and pressure that the US, more often than not, unduly exerts, Ragavan referenced the US Trade Representative annual 301 Report which compiles a list of countries creating trade barriers to US business every year. If an industry feels that US trade is being blocked from any global market, say, the Indian market, then India would be named in that list. She said that India is unique for having been featured in every such list that has ever been made. Recent amendments to the Trade Act, titled the Trade Facilitation Act, have created the position of a Chief Negotiator. One of the main roles of the Chief Negotiator is to negotiate with all countries in the Priority Watch List of the Special 301 Report such as India, Canada, and Chile. Ragavan added that countries like India should be aware that the WTO has ruled on such unilateral sanctions in the case titled Special 301-310. Under the WTO jurisprudence, the actions of the US using the USTR can amount to excreting undue unilateral trade pressure which can amount to a violation of the commitment to resolve disputes using a multilateral forum. That is perhaps one of the reasons why US hesitates to add countries to the Priority Foreign Country List which effectively sends the signal that the US will exert unilateral pressure on that country to amend its laws. That said, India should be aware that the US can also take India to the WTO on a non-violation complaint. Although Ragavan believes that developing countries have a stronger case, it is good to know what the other side can assert under these situations. Countries like India should take the leadership role by involving the WTO especially when it can be aware that other countries such as Chile, Canada, and Ukraine would support its position.

On compensatory commons she said that she sees this as the role of the Courts for balancing private property with the right of access of the public. The judiciary has to be

aware of legal as well as economic implications on trade and intellectual property issues. In India, the New Delhi High Court in Roche v. Cipla held that when a patent holder is seeking an injunction, the Court held that pending resolution of the dispute, manufacturing of the generic medication can continue to ensure that the access to the medication is not adversely affected pending resolution of the dispute. She noted that this decision is a great example to define compensatory commons which is needed to create that public-private balance.

VC Vivekanandan

After this Prof. Basheer introduced the second speaker, Prof. VC Vivekanandan, the MHRD IP Chair at NALSAR. In his speech, Prof. Vivekanandan said that he will be examining whether IP is an end in itself or a tool aimed at achieving a specific end. He stressed upon the goal of Public Interest inherent in all theories of IP and more so in Utilitarian concept where the IP is justified when it serves Public Interest. He highlighted that Incentive and Access needs to be balanced and in such context Access always has the edge over incentive.

He said, in compulsory licensing, you are compelled to grant a license to a third party, and the royalty paid is at a rate established by legislative fiat. Therefore, this can only be done in case of a compelling public interest. He said that broadly, two such possible reasons exist, one in case of the non-working of a granted patent and another where there is necessarily wide need for access and therefore access must be prioritized.

He said that compulsory licensing arises from the 1967 Paris Convention, which spoke of compulsory licensing to prevent abuse occurring from non-working of a granted patent. TRIPS, according to him, expanded this, increasing possible reasons to include protection of public health, promotion of public interest sectors of vital importance to development, and general public interest. He said the general discourse of those who support Intellectual Property Rights before Doha declaration is that it should be an exception to exclusive rights conferred may be granted as long as it is limited in nature and does not unreasonably

conflict with a normal exploitation of the patent or unreasonably prejudice the legitimate interests of the patent owner. He observed that it is effectively a judgment to be made on merits. However Doha Declaration changed these notions and left the decision making to the sovereign states to decide the context of public interest and is loud and clear as an international provision.

He gave a comparative data of Canada, US, Germany, Australia, , US, South Africa, Israel, UK, India etc. of allowing Compulsory licenses in the pre TRIPS period . It was in the decline in the post-TRIPS regime in spite of clear provisions. Based on his recent project in Japan on Compulsory licence he briefed that though there is a negative opinion about India giving compulsory licence, there is a similar provision in the Japanese Law. It is kept as a tool for any future need. Due to universal health insurance cover there is no pressing need for compulsory license in pharma sector in Japan. In fact many preferred branded drugs as it is subsidized by the Government by their health insurance. Even Public Interest is interpreted as preserving a health accountable private sector by the IP analysts in Japan. However the objective condition in other places like India is different than that of Japan.

He questioned the portrayal of the compulsory licence issued in India as a grave danger by certain sections and made an analogy to the fire extinguisher and compulsory licence where there is a fire extinguisher always used there is a fire – in this cases impediments to access. He concluded that when many countries knowing fully well of their issues with IPR accepted TRIPS as a minimum standard, there are efforts to take it as TRIPS + and TRIPS ++ by some quarters. This is like moving away from a regulated fight like WTO to that of a street fight in case of TPP, ACTA which are plurilateral in nature.

Jayashree Watal

Prof. Basheer then went on to introduce the next speaker, Ms. Jayashree Watal, who used to be one of India's TRIPS negotiators in the WTO. Ms. Watal began by noting that there is

wide agreement that there must be a balance. The question really was on where to draw the line, for example would an automatic compulsory licensing be considered balanced? She argued that it is relevant to raise the subject of automatic compulsory licenses, since it had been raised in several submissions to the UN High Level Panel on access to medicines. While compensatory commons is about compensating the innovator without granting exclusivity – and one way of doing this is automatic compulsory licensing – there may be other models used. According to her, India actually had the automatic license of right system from 1972 to 2000 in its Patents Act 1970. The Indian Patent law allowed every pharmaceutical, chemical, or food patent application to be stamped as available under a licence of right so that anyone could use it. All that was needed was payment of royalty to the right-owner. If the right-owner wanted more royalty, he would approach the Comptroller General of Patents to arbitrate the right amount. The statute limited royalty however to a maximum of 4 per cent of the licensee's sales revenue. Though this existed, she said that we never really had experience with this system in India.

This is because, according to her, there were three bullets that already killed exclusivity in the law, particularly in the pharmaceutical sector. *First*, one could only patent the process, and not the product. *Secondly*, the term of a pharmaceutical or food patent was only five years from grant or seven years from filing, a period which did not allow the patent owner or his licensee to bring the product into the market. *Thirdly*, there was an automatic licence of right system which made the patented invention open to all to exploit for a maximum royalty of 4%. Hardly anybody was filing for pharmaceutical inventions in India and there was certainly no incentive to bring new pharmaceutical products into India. The country had an average of 3000 patents or so being registered per year prior to 2000, and even among those very few were actually pharmaceutical patents.

There was one country in the world that used the automatic license system without actually calling it so – i.e. Canada. It routinely permitted compulsory licenses in the pharmaceutical sector with a 4 per cent royalty. The Canadian system was completely dismantled because of NAFTA, in exchange for more pharmaceutical R&D being done in Canada. She said that subsequent to her participation in the TRIPS negotiations in Brussels in December 1990 where the Uruguay round broke down, a non-discrimination clause entered the TRIPS text that prohibited discrimination of availability or enjoyment of patent rights based on the field of technology. This is perhaps why India discontinued its automatic licensing regime. However, the TRIPS Agreement does not restrict the grounds for the grant of compulsory licences and WTO members merely have to follow the steps enumerated in Article 31 of the TRIPS Agreement.

In December 2005, everyone agreed there should be an amendment to the TRIPS agreement to allow for 100% exports under a compulsory licence. We hope that this amendment would enter into force shortly Ms. Watal noted that it is interesting how the Indian judiciary appears to permit the continuing infringement of a patent on condition that a retrospective payment of royalty be paid. This appears to indicate a form of compulsory licensing by the judiciary but she deferred to other experts in this matter.

Dilip Shah

Mr Shah began by stating that, in the internal economic logic to compulsory licensing, even economists agree with the free market justifications that the previous panellists had asserted.

He explicitly stated that he would address the audience from a completely different perspective on the same issues. His speech began with coverage of five major issues, with a broad focus on why rich countries are opposing compulsory licensing.

With industrial concern on the Trans Pacific Partnership (TPP), he considered compulsory licensing to be the most commonly accepted solution for protect public health. Compulsory licensing, according to Mr. Shah, was used even by many developed countries, to ensure that important medicines and drugs were made available at much lower costs. He understood it as a tool for promoting competition, and also as the most effective deterrent to abusive pricing. He noted that this tool, interestingly, was very sparingly used by developing countries in contrast with developed countries. For instance, between 1947 and 1970, when India needed penicillin for its soldiers in its wars, it could have used this tool, but did not do so as it was under international pressure.

He claimed that US corporations at present pressurize their governments by means of intellectual property, gaining a major hand in foreign exchange. IP effectively is made a cash cow of sorts, and is being used in that manner. The Ministry of Agriculture in India, on the other hand, has suggested compulsory licensing as a useful tool for genetically modified seeds.

When looking at the compulsory licensing regime under the TPP, he recognized the investment chapter to be ridden with difficulties. He takes the example of recent invalidation of a pharmaceutical company's patent by the Supreme Court of Canada. Under the TRIPS Agreement, he stated that the extent to which a governmental action is consistent with it is subject determination through arbitration led by private right holders for non-voluntary uses of IPR. Accordingly, a private investing company could in fact fight an unreasonable host country in the WTO. This is not just an academic provision – it has been used before and countries have been successfully sued for as much as 500 million dollars. While this does bring with it the possibility of forum shopping, the degree to which it empowers investors is tremendous.

He then addressed the issues faced by Colombia and India with the USTR. The US does not want these two countries to use compulsory licensing as a solution for addressing public health needs. Although the Trade Promotion Authority (TPA) mandates USTR to respect the Doha Declaration, the USTR is pressuring India just as much as Colombia to amend its IP regime with respect to compulsory licensing. India has issued only one compulsory license – and Columbia is now at a point where it is considering whether compulsory licensing is really necessary. This kind of pressure is clearly not respecting the Doha Declaration.

The US recently amended its trade facilitation policy to take action against these countries. The USTR also has a new tool for TRIPS Plus. The Trade Facilitation and Trade Enforcement Act of 2015 enables the USTR to use the Special 301 list to exert further pressure on countries under the Priority Watch List.

According to Mr. Shah, the way forward is that countries which fully respect the global standards of IP protection set in the TRIPS should, based on their own particular set of circumstances, determine the right balance between fostering innovation and enabling access to ensure public health. The USTR now must show specific actions that it takes against India for not conforming to what US wants it to do.

The government of India reacted to the US pressure on the 23rd of May with the World Health Assembly, a side event with the BRICS nations. Its agenda was regional states and its impact on access to medicines. All the developing nations were sensitised of the danger posed to public health in their own countries by conforming to the US regime. Another initiative of the Indian government is a proposal for a 9 billion dollar fund in Africa for R&D in the pharma sector. Mr. Shah concluded that all these efforts must work towards ensuring that BRICS countries unite to save lives, to enable greater access than that which exists right now.

With all this done, the panel opened the floor to questions and comments.

Q&A Session

Prashant Reddy (from the audience) thanked the panel for an incredible session, but opined that the panel had arrived at a disappointing consensus. It was his contention that the equivalence that had been drawn between American and Indian compulsory licensing required more nuance. He drew a distinction between the two schools of jurisprudence. American jurisprudence on that point has been based on anti-trust theory or on federally-funded inventions. That's very different from Indian jurisprudence, which uses price as a trigger to ensure compulsory licensing. He pointed out that evidently, price is particularly pertinent for a poor country like India. Therefore, applying compulsory licensing in its true spirit, every drug in India would qualify for compulsory licensing. He also noted that price control is a better way to do this.

He proceeded to discuss some aspects of the Essential Commodities Act. The government routinely fixes prices of generic drugs which the generic drugs industry states prevents them from developing infrastructure, precluding quality. We've had bad experiences with the government setting prices; maybe the market would be better off. The industry can't both say that compulsory licenses should be given for specific licenses, and then complain when their prices are fixed.

Mr. Shah disagreed. He said that once four people died due to the Anthrax scare, the US considered granting a compulsory license due to a public health emergency. They were willing to do it. So the US isn't really all that different.

Secondly, he said that the generic industry India isn't aggrieved because of pricing issues. They don't mind essential medicines being priced low. Their issues are focused on the fact that rule of law hasn't been followed by pricing regulators in the pharma industry. The ceiling price has fluctuated arbitrarily. Moreover, they are trying to regulate even those selling below ceiling prices, which is illegitimate. You cannot force people already selling

below ceiling prices to reduce their prices even further. The industry is therefore justly up in arms.

Prof. Basheer argued that US jurisprudence on compulsory licensing has also taken into account “public health” and “public interest” factors. And the US threatened Bayer with a compulsory license in the past in order to drive down prices for the Anthrax drug: so pricing has played some role, though not as extensively as India. This could also be due to the nature of insurance coverage in the US and the fact that in India, most health expenditure is out of pocket. He also argued that while price control may be thought of a solution as well, it is conceptually distinct from compulsory licensing and has its own set of advantages and disadvantages. Illustratively, the price control threat cannot be used effectively with a drug company that threatens to exit the market if the price is set low. Whereas in the context of CL, threatening to exit does not hold much weight, since that compulsory licensing applicant would still manufacture the drug.

Prof. Raghavan then clarified that in the US, public health and pricing has been used as a standard. It wasn't just number of people being affected, it was also cost. Even if it hasn't been used in the past, that doesn't mean price isn't a criteria. Compulsory licensing may be a bug, but it's a negotiated bug. You can't do away with it entirely due to a lack of credible alternatives.

The panel then considered a series of tweets by Mr. James Love (KEI), in response to the live tweets of the event, asking whether the USTR has ever gone on record saying that compulsory licensing can be used only in moments of grave public health crisis. Ms. Raghavan responded, saying that the USTR has never gone on record on this point. The most extreme position they've taken is that they threatened Colombia with cutting off 450 million dollars of funding that they've promised for the peace deal if they continue to use compulsory licensing.

Ms. Watal proceeded to point out that there is actually evidence going back to industry surveys in 1973 in UK. There is a certain percentage of innovations that would not enter the pharmaceutical market if compulsory licensing existed. In the current model, patents are so very important that innovation would be very stifled.

Prof. Shubha Ghose then said that if you're using compulsory licensing to solve healthcare issues, you can't do that without thinking of other instruments. He felt that we shouldn't go to compulsory licensing as a default tool. We should instead look at alternatives such as Medicare and Medicaid in the US. If you want to revamp healthcare in India, it doesn't make sense to start thinking with compulsory licensing. Instead, it should be used only as a threat of last resort, almost as you would use something like eminent domain. It isn't something you use easily at first instance. His worry is that compulsory licensing could be used a tool, as plaything in litigations.

Prof. Basheer responded saying that the government so far has been very hands off-ish when it came to drug access and public health. Thus far, they were content to leave it open to the innovators and generics to slug it out in the open market through patent fights and what not. However, now they are increasingly partnering with each other and we cannot rely on generics to safeguard public health and access in the way we used to. The government must play a more active role now. Compulsory licensing is a powerful way in which we could continue to promote access, when we have an inactive government which is unwilling to spend massively on public healthcare infrastructure.

Prof. Yogesh Pai then asked what the future of bio-drugs in the context of compensatory commons. Mr. Shah responded, saying that that is a matter of strategy of the rights holders. Roche challenged in two cases recently, where they argued that a product they'd made at the clinical stage is not the same as the final product that they made available for sale. Similarly, the products they made in the US and Switzerland respectively are different

products as well. No large company capable of developing drugs would want compulsory licensing.

Prof. Basheer pointed out that this was only the short-term context. When companies become more proficient at producing bio-generics, ten years into the future, that's when compulsory licensing will begin to have a larger role in the bio-drugs industry. It's just a question of acquiring the capabilities necessary for mass production of bio-generics. That'll be the tipping point.

Mr. Guruswamy Nataraj, a leading patent lawyer from Delhi suggested that compulsory licensing may be the only way forward for the industry. With the spate of injunctions, and unreasoned judicial decisions, the industry may not have a way out. Mr. Shah felt that the situation is even worse than that. He said that given the present frustration of the industry, if you were an entrepreneur and 60% of your sales were coming from outside India, honestly it would just make a lot of sense for you to leave the Indian market. You're also likelier to invest more and more investments outside India. Employment and capital will not be generated in India. This trend has been particularly true since 2011. The industry won't look at Compulsory Licensing as a business model – instead, it's likely to just move to other markets which are more appealing.

Mr. Nataraj said that with all the import and sell agreements taking place right now, if you are simply selling a repackaged product, all the benefits you would get in terms of trademark, copyright, and goodwill continue to accrue to the foreign company, not the Indian one. Mr. Shah then pointed out that this was not a common practice. At best, MNCs would use a subsidiary or a dummy company to bring in imports through trade channels. There's a direct link with the patient that way, so they don't need to have import and sell agreements. That is certainly a concern for public health.

Taking the discussion in a different direction, Mr. Choudhury said that the US apparently tried to not give a second term to a panelist because of some decisions being given them. He asked whether India was trying to counter them. Ms. Watal responded, first clarifying for the audience that the US recently opposed the second term for a Korean member of an appellate body of the WTO. Consensus is usually taken for granted, but he had been anti-US. This was a first. She simply joked about how we should just be happy that they didn't block the re-appointment of the Indian member, and the session was concluded on that note.

SESSION II, PANEL 4: OPEN EDUCATION

This panel was moderated by Swaraj Paul Barooah, Editor-in-Chief of SpicyIP and Executive Director of IDIA. Mr. Barooah spoke of how we Indians know that education is important but we fail to understand what is ideal. In this context, the process of 'open education' or the move towards open education helps us understand where we are headed. He used Wikipedia to explain what is meant by Open Education – *“a collective term to describe institutional practices and programmatic initiatives that broaden access to the learning and training traditionally offered through formal education systems. The qualifier ‘open’ of open education refers to the elimination of barriers that can preclude both opportunities and recognition for participation in institution-based learning.”* He said that aside from open education resources, there are also open technologies that facilitate collaboration, flexible learning, and open sharing of teaching practices that help educators in their work. It also touches upon new approaches to assessment and collaborative learning.

Arul George Scaria

Prof. Scaria's presentation titled 'Converging Open Education Materials and Class-room Methods: A promising mode of knowledge' was a case study on a pedagogical experiment he conducted at NLU Delhi. He started with his concern on India being one of those countries which require openness in many aspects, be it openness in policy making, access

to different legislative materials, judicial opinions and scholarly publications. He said we fare very badly on the issue of openness and most of the times we neglect discussions on these issues. According to him, we need to discuss them from a broader perspective.

He pointed out that one of the most important changes that happened in the field of education in the last decade is emergence of [Massive Open Online Courses](#) (MOOCs), which provide us with the possibility of attending some of the best courses offered in some of the most prestigious universities across the world. But we need to go beyond those open education materials and see how more dynamic learning experiences can be provided with the help of those open materials.

At National Law University Delhi (NLU), he is engaging in a collaborative pedagogical experiment with Prof. William Fisher of Harvard Law School (HLS). Prof. Fisher has developed a course titled 'CopyrightX', which focus on the US copyright law. There are three types of courses under the CopyrightX program: (1) A course for students of HLS, where Prof. Fisher engages directly with the students; (2) An online version of the course, where students are primarily engaged by student fellows at HLS; and (3) Affiliate courses offered by faculty members teaching at different institutions across the world. NLU Delhi is one of the affiliate institutions offering the third type of CopyrightX course and Prof. Scaria has developed a comparative copyright law course (focusing on the Indian copyright law and the US copyright law) with the help of open education tools created under the CopyrightX program. The course at NLU Delhi was different from most other affiliate courses, as it was a comparative copyright law course.

The first and most important component of the comparative copyright law course at NLU Delhi is the syllabus. The syllabus used for this course broadly follows the course structure developed by Prof. Fisher for students of HLS. The syllabus was created on the H2O platform, which is an online platform for sharing course syllabi openly. Prof. Scaria created

the syllabus by combining the materials used by Prof. Fisher for his HLS course and materials on Indian copyright jurisprudence. According to Prof. Scaria, the biggest difficulty in the syllabus creation was lack of access to materials on Indian Copyright Law, including judicial decisions and scholarly publications. Even though the complete syllabus of the course was available online openly, some of the resources like scholarly publications on Indian copyright law couldn't be shared online as they were not available in open access modes. The second important component in his comparative law course is the set of lecture videos by Prof. Fisher on the US copyright law. All the students enrolled in the course had to watch those lectures before attending the classes. The third component is maps prepared by Prof. Fisher on the US Copyright Law and theories of intellectual property (IP). But what really makes the course different is in-class discussions. Around four hours were spent every week to discuss different topics, from both the US as well as Indian perspectives. This provided students a much broader comparative perspective. The in-class discussions are also complemented with two online platforms: (a) CopyrightX online forum which is open for CopyrightX students from across the world, who have enrolled in any of the three versions of the course (b) A shared online document (Google Doc) where all the NLU Delhi CopyrightX students posted their questions and comments relating to the topics for discussion in their upcoming class. Since it was mandatory to watch the lecture videos of Prof. Fisher, most of the comments and questions focused on the lecture videos.

Peer learning and collaboration were important aspects of this project. In fact, all the teachers of CopyrightX had to prepare a case study from their jurisdiction and those materials were available for all CopyrightX teachers. Those case studies substantially helped in giving students a cross-jurisdictional perspective of the law. The students of the course at NLU Delhi also extensively engaged in peer learning and collaboration. For example, they were all assigned a case study as part of the course and they were actively encouraged to share the summary of the case through Wikipedia. Most of them created new Wikipedia

pages on their case study and for many of them it was the first wiki-editing experience. As part of the evaluation adopted in the course, the students also had to write a short paper on a topic of their interest. The only requirement was that topic should be of relevance from a comparative perspective. All the articles were subject to an open peer review process and students commented on each other's paper. This not only helped them learn from their peers, but also improve their own research skills/ critical thinking. CopyrightX program also encourages organising of special events as part of the CopyrightX courses, where practitioners or artists are invited. This year NLU Delhi organised a special event where Mr Prashant Reddy discussed with the students the working of copyright societies in India.

Prof. Scaria described the experiment as successful overall and shared some of his insights from the same for developing similar comparative law courses. He outlined that the broader implications of this model are that first, it connects faculty who have expertise on law, culture, contexts in different jurisdictions and second, it leads to more dynamic learning experiences. He also shared some of the potential challenges one may face in developing such courses: first, resource constraints, both in terms of money as well as time; second, difficulties in ensuring that the students actually watch the online lecture videos and if they don't watch the videos in advance, it may affect the ability of the class to have concrete discussions during the in-class sessions; Third, the course materials like lecture videos need to be regularly updated by the partner universities; and finally, it is also important to ensure that the motivation and engagement levels of the students are retained throughout the course. For this, online learning needs to be complemented with many other pedagogical measures. He ended his presentation by noting that projects like this also leads to a more decentralised approach to teaching.

Sunita Tripathi

The next speaker was Prof. Tripathi from Jindal Law University. She started off her presentation by acknowledging Prof. Scaria's conclusions regarding ensuring that students watch the videos in online courses. She mentioned that recently, the empirical correlation between the attendance of a student in a classroom and their performance in class has been found to be a mere 0.65.

She then gave a bit of background into her own presentation. She holds the position of Director of Student Initiatives at Jindal. She is responsible for developing adequate student governance among the student body. She is also the course instructor for the Legal Methods course taught to first year students. She carried out an experiment which studied student reaction to Open Education and Peer Review. While the fact that CGPA is a prime factor in the employability of these students affected the outcome of the experiment, she found that the students with difficulties in learning were generally empowered by this process. As a part of the course, the students were asked to go outside and photograph something that depicted infringement of legal method. They took to sharing these on social media. These were accompanied by comparative notes on the picture from other jurisdictions. Later, in the classroom, very interesting discussions regarding policies to correct the difficulties captured by the pictures ensued. As a part of an online course she conducted out of Sonapat, she reached the following conclusions about the implications of this particular method of teaching. Firstly, the platform of online discussions provided by online courses made students think more and prevented them from randomly quoting authors in their writings. She believed it has to do with the changeover to innovative approaches to education from traditional approaches. Secondly, peer assessment was crucial to the process of learning from an online course. In the experiment, the students were also assigned cases and were asked to teach them to the class. This involved the whole

process of them preparing class materials, taking questions from other students beforehand and preparing for them before class. This developed their critical thinking and very interesting class discussions followed. She also mentioned that the current education system lacks adequate infrastructure to identify students with learning disabilities and develop different marking systems for these students. Her Legal Methods course has particularly benefited from open learning since the course material has been contributed to and developed by current and former students. She finally concluded that a policy of open assessment often develops into open learning.

Shubha Ghosh

The next speaker was Prof. Ghosh from Syracuse University College of Law, formerly at University of Wisconsin Law School. He addressed the issue of the role of universities in the IP ecosystem. The first part of his presentation concerned how universities have developed over the years. He kept this part short; only to provide context to the rest of his presentation. While the origins of universities are religious in nature, they later expanded to become centres through which education in all disciplines was imparted. German Universities are a prime example of how universities began recognizing the encyclopaedic nature of knowledge. In WW-II, many universities were suffered immensely from loss of infrastructure and lack of adequate funding. He noted that in the rebuilding efforts of these universities, there are parallels between the methods followed by German and Indian universities. In the 1960s, universities became centres for political activism in Europe. However, modern day university debates are more concerned with political correctness in Universities.

Universities have both profit and non-profit motives. The activities conducted under the former are MOOCs, expensive Masters' programmes (LLMs in the U.S.A) – these mainly earn revenue for the University. The non-profit aspect of universities is their more traditional

aspect. It is directly rooted in cultural specificity and is in contradiction with the idea that universities are also the basis for innovation. He then talked about the role of IP in the University system. He addressed the issue of universities becoming patent hubs by saying that while they are not supposed to, they enforce patents anyway. This makes their role in the society more commercial in nature. He then addressed the epistemology of universities. He classified this as: a) Facts and Data, which are basic information conveyed to the general public; b) Information, which is facts and data gathered and organized a bit, for e.g.: Wikipedia, Blogposts Textbooks, Casebooks etc.; c) Knowledge, which involves a greater degree of organization of information and data. It is contextualized in a category or discipline for e.g. law, philosophy and culture of a particular company (tacit knowledge). The above have implications for IPR. Data and facts have to be in the free domain; this is so for 'copyright' but not for other forms of IPR. This is because of commercialization pressure and knowledge protection pressures. Information, the second category, usually in the form of patents and trademarks has to be proprietary but only to a certain extent. It is not necessarily free. The question that arises then is to what extent it should be proprietary. Knowledge, the last category, has long been protected by social and cultural exclusion, sometimes in tandem with IPR. We have to be careful about this. He introduced a fourth category, "wisdom". He asserted that wisdom cannot be taught by anybody. He concluded on the note that we require proper balance between IPR and the need for access.

Dev Gangjee

The last speaker for the session was Prof. Gangjee of Oxford University. His presentation was titled "*Bookmark This! The Transition to Open Access Journals*". He began by defining the term 'Open Access' (OA). Information that is digital, online, free of charge, free of most copyright and licencing restrictions is considered OA. This has a both *gratis* and *libre* dimension. The conditions of emergence for this warrant a discussion. First, the advent of

digital networks has made the existence of perfect copies possible. Second, the journal crisis which happened in the 1990s involved mergers of various publishing houses leading to three major players emerging. This led to a surge in journal prices and an increase in the pressure on library budgets. Third, academic authors are an unusual category of creators. Authors are not novelists depending on royalty revenues. They earn salaries or are paid from research grants, work in a professional culture sustained by knowledge sharing ethics, dissemination of their work enables reputation signalling, impacts on promotion and tenure, facilitates the scientific method, etc. There are various benefits and concerns arising out of the OA movement. The benefits being that firstly, knowledge diffusion occurs (reference to the Library of Alexandria dream). Secondly, this works for academics as it increases their readership, leads to more citations and makes their bibliographies better. Thirdly, this also has immense benefits for libraries. Prof. Gangjee also addressed a few concerns. Firstly, academics may lose out because their work is being given out for free. He dismissed this by saying that the submitting articles, editing them, and acting as referees occurs for free anyway so this is not an issue. It is also offset by the career advantages that authors get. The second concern is regarding the effect of peer review on the quality of the publications. According to him, this was a legitimate but manageable concern. The third concern may be of the publishers regarding the pressures on their business model. Prof. Gangjee argued that the evidence – at least from Physics – suggests that OA does not lead to cancellations in subscriptions.

He then addressed the issue of OA distribution mechanics. He classified the current modes of access to journals as follows. First, there is the closed or conventional access model (e.g. JSTOR). Second, there is the OA model which has two sub-types: Gold and Green. The Gold sub-type provides the published, peer reviewed version of the article and requires an article processing charge or institutional support to access. The two variations of this are hybrid OA which involves some payment per issue or a Moving Pay Wall, or the full OA version which

involves no payment. The Green sub-type involves online repositories where post-peer review but pre-publications drafts can be uploaded and may be subjected to an embargo period of a few months. These may be of the Institutional Repository type (e.g. University of Oxford repository) or the Subject-based type (e.g. SSRN-LSN).

There has been a recent trend in many access platforms adopting OA mandates. It is encouraged by funders and institutions. The growth-graph of OA journals shows a steep increase and is driven by sciences. While there were only 33 OA journals in 2002, there are over 8000 in 2015. An important indicator of this growth is the increased efficiency of search engines. He then addresses OA's relationship with Copyright. He said OA works within the copyright system and it starts upstream. Copyright is automatic and arises on creation, usually vesting with the author. The author may then retain the copyright instead of assigning it to the journal (instead granting the journal a licence to a version of the work). Funders increasingly strengthen the authors hand by making OA a condition of the research grant, which the author then uses when negotiating publication agreements with journals. The OA model is also supplemented by creative commons licenses, whereby the author retains some rights such as attribution. He lastly addressed the issue of sustainable business models for OA journals. It could charge Article Processing Charges (APCs) wherein the author pays the journal to have the article published in OA. It may adopt a model where it redirects funds from subscriptions to APCs. Libraries may start their own OA journals. The revenue could also be offset by income from print editions and advertising. Lastly, the endowment model followed by the best U.S Law Reviews could be followed. He ended his presentation hoping for an increased acceptance of OA in the Indian scenario.

Q&A Session

After this, the moderator, Mr. Barooah, opened the floor to the audience members for questions. Mr. Sugathan wanted to know the role of University Press (UP) in IP. Further,

what is the need to go commercial when all the work is being done by the university? Prof. Gangjee responded by saying that the universities have been re-examining their role in the publishing spaces – they were set-up to publish “niche stuff”. UP is a way of cross-subsidizing their publications like textbooks. The UP either publishes the journal or pays for everyone to use it. Prof. Ghosh mentioned the relevance of derivative works to this question, e.g. remixes (essentially what a course plan is). There has been a trend towards ‘remixing’ journals and publishing your own. There has also been some movement towards OA textbooks but very little so in the field of law. Prof. Sunita commented that such a lawsuit will be a golden opportunity for this discussion to take place in India. Prof. Scaria mentioned that OA with respect to journals may have to be treated differently from OA with respect to books. OA for journals is easier in the sense that it is a decision that can be made collectively by the academic and publishing community. OA for textbooks is harder because the distribution mechanisms are still controlled by the publishers. He also advocated for hybrid models in book publishing and cited the example of the Death Penalty Report published by NLU Delhi Press recently. This report was made available for free online (soft-copy) and the hard-copy was sold for a certain sum of money. Prof. Ghosh at this point also commented that having cheaper textbooks from a company like Wiley in India puts pressure on local publishing houses.

The next question was posed by Prof. Basheer. His first set of concerns was regarding inclusive OA. He queried how this debate pans out for law schools without digital access. Further, the problem of rural outreach isn’t addressed e.g., Khan Academy doesn't make sense in rural areas. He asked the speakers if they had come across any interesting models to foster open access. His second concern was the tremendous bureaucracy in Indian Institutions. It is very difficult to set up a living outside of the university context, create content, and then sell this content. The Indian Government doesn’t even understand OA properly as is evinced from their behaviour at various points. He wanted to know how this

pans out in the context of developing country. Prof. Gangjee answered that there can be a mitigation or waiver system in place in the OA business model. People who cannot afford to pay don't have access to [Gold OA model]. Further, when considering rural areas, the market needs to be classified / stratified; a top-end physics journal will never go to a rural area anyway while a textbook might. On the issue of libraries, Prof. Ghosh answered that a lending library is the ultimate form of OA. Universities should be investing in cyber libraries which are open to anybody and can benefit thousands.

The last question of the session was posed by one of the students in the session. He asked the panel for their opinions on the NTPL project under which the government uploads online lectures from places like IITs etc. He further questioned the panel as to how this website "cyhub.io" is affecting the OA system. Cyhub allows users to illegally download articles from non-OA databases using an algorithm to bypass their security systems. Prof. Gangjee, to the latter question, responded that these websites and movements arise from a post-communist context where the information flow was heavily restricted. This ties into IP enforcement debates. To some extent, such websites are tolerated by publishing houses. If they become too big of an issue, the legal system gets involved. The major difference between cyhub and OA is that OA works within copyright law, illegal access works outside it. Prof. Scaria answered the first query by saying that such projects completely ignore the technological divide and heterogeneity of target audience. He added that he supports movements like Cyhub as they add external pressure on publishing houses to experiment new business models and such pressure is good for the society. Prof Ghosh, on the second question, commented that while the U.S. law of copyright does not prevent the lending of a source, European courts have taken a different approach. US courts say no exhaustion of rights takes place. It is unclear whether he seems to imply that movements like Cyhub might be legal in the U.S.A. Prof. Tripathy, on the first question commented that the government's initiatives were not well-informed. On the second question, she said that movements like

Cyhub may be a reaction to institutionalizing corruption in the field of IP. She further commented that the Indian Government has no idea of the concept of “exhaustion of rights” and simply does not understand it. This was followed by a comment from a member of the audience who referred to the first question and said that one good consequence of initiative like ‘Pathshala’ is that all CBSE textbooks have been uploaded online.

SESSION III, PANEL 5: OPEN LAW AND POLICY

The session on Open Law and Open Policy with Ms. Arpita Sen (the Moderator) introducing the three panelists – Mr. Prashant Reddy, Prof. Prashant Iyengar, and Prof. Richard Jefferson.

Prashant Iyengar

Iyengar congratulated SpicyIP on reaching its 10th anniversary, and commended its contribution towards bringing the IP discourse in India to where it has reached today. In the session, he narrowed his focus to ‘Copyrights and Access to Government Information.’ He said that he was interested in Unlocking IP to Unleash the Commons. The questions that need to be considered are: to what extent are the commons open and to what extent does Intellectual Property Rights law impede the furtherance of the commons in government information. He said that through his discussion he seeks to show that it is not the Intellectual Property Law, but the absence of a proper bureaucratic structure for that purpose that serves as an impediment.

What constitutes government information is not only the conventionally believed statutes and decisions of the courts, the modern state engages in two important functions – welfare activities and surveillance. Both these functions involve the collection of a lot of records. He focused on the availability of the statutes and judgements in his discussion. The necessary question here is whether India has a statutory provision that mandates the publication of

statutes and decisions. This is important in regard to laws in other countries like the UK's Crown Office Act of 1877, wherein the Crown is required to consider the best mode of making such information public and UK's Statutory Instruments Act, 1946 which mandates the government to take active steps to publish such data. There are similar provisions in Canada also. The effect of these provisions is that the lack of publication of any specific law becomes a defence to being convicted under it. India lacks a general statute like this. While the Manual of Parliamentary Procedures does provide for publication of Bills and Acts in the Gazette, it does not provide for any consequences if this is not followed. However, most statutes do mention that the statute will come into effect on the date of its publication in the Official Gazette. In the case of *Harla v. State of Rajasthan*, the Supreme Court had agreed that publication in the Gazette is absolutely necessary for the law to have effect. However, since then the Supreme Court has interpreted down its position. Subsequent decisions have laid down that while publication is a must, it is acceptable even if the publication was done by a private or commercial compiler. Moreover, the Gazette itself is supervised under the Department of Publications and Directorate of Printing and serves as a printing instrument; and has no positive obligation to ensure the publication of laws enacted by the Legislature. This leaves another question – whether there is a mandate to publish court decisions, particularly those by the Supreme Court as they serve as binding laws under Article 141 of the Constitution. While the Supreme Court makes it a point to mandate publishing statutes, there is no equal intention of publishing court decisions shown by it. In fact, only parties to a suit are entitled to a copy of the decision.

Iyengar returned to the question of to what extent copyright law impedes the open access with respect to government information. While the Copyright Act permits government copyright, but not a single instance has been found where the government has sued a party for violation of its copyright. This is also not because the government is committed to open access, but because of the lack of an IP sensitive or protective bureaucracy. In the Right to

Information Act, 2005, Sec. 4 provides for pro-active efforts by the government to disclose information. But, under Sec. 8(1)(d), an exemption for Intellectual Property has been made. He went on to give 4 instances where a disclosure of IP was sought. In *Anand Chitrapothu v. Infflibnet Centre*, the plaintiff wanted the defendants to disclose their national bibliographic database. The Central Information Commission (CIC), in agreement with Infflibnet, refused the plea citing that internationally, this information would be expensive to obtain. In *Shiv Shambhu v. UPSC*, the plaintiff wanted to claim disclosure of questions papers and model keys, while the defendant claimed it as their intellectual property. While the court agreed to it being UPSC's IP, it mandated disclosure in the interest of the public. In *Sudhir Vohra v. DMRC*, the plaintiff requested for the disclosure of the architectural drawings of a pillar that fell off. The court agreed with his argument that disclosure would not lead to any material loss to the holder of IP, that is, DMRC because no one would buy the design of a fallen pillar anyway. In *Vansh Sharad Gupta v. PIO, Legislative Department*, the plaintiff filed a suit for a PDF Copy of the Indian Christian Marriage Act, 1872 and the CIC found in favour of the plaintiff and awarded the NLSIU library Rs. 10,000 and asked the legislative department to update him.

Thus, he reiterated the point that it is the lack of bureaucracy, and not IP that has restricted open access to government information. But this has been attempted to be compensated for by the National Informatics Centre which is somnambulistically uploading a lot of vital information.

While, the RTI Act has served to further the cause of Open Access, strangely, it has also made the government body more aware of its Intellectual Property Rights. This, however, has been mitigated by the CIC taking a more liberal stance towards open access and in favour of proactively disclosing information.

Prashant Reddy

Mr. Reddy spoke on Transparency in IP Law Making in India. While the RTI has revolutionized access to empirical records, the problem with India is its bad record keeping tradition. So, nearly half the time, the response is that the relevant files have been lost. This, when compared to Prof. Iyengar's access to 19th century records, makes it evident that there is something that the British were doing right. The second problem is the lack of access to aggregated data without which academic study becomes difficult. Moreover, another problem that he found while working as a research associate with Prof. Basheer at NUJS was that some bills are considered confidential before being tabled before the Parliament. The reason that is often given is that this is done to prevent special interest groups from lobbying and influencing the policies. However, he says that there is no way in which we can know that they are not doing this already. The last government, in its dying days, after some pressure from the National Advisory Council, came out with a pre-legislative consultation policy. The present government has clearly not paid attention to that, given how the Aadhaar Bill was tabled and enacted within 10 days. There is a clear problem with how the bureaucracy looks at transparency in law making.

One of the important aspects here is the role of Standing Committees in both the House – a practice institutionalized post-1991. Before 1991, the Ad Hoc Committees played the role. While they do a good job of making the process consultative, they are not as participative as they could be. Moreover, they have used the concept of Parliamentary Privilege to make their deliberations confidential. While they always make a good transcript of their meetings, whether they are made public will depend on if the Chairman of the Committee decides to table it before the Parliament. This is problematic because this concept of Parliamentary Privilege was created when the British Parliament was still trying to find its feet against the Crown, and doesn't hold much relevance in the Indian context. While this was never codified

in India, the Supreme Court in certain judgements said that parliamentary privileges trumps even the fundamental rights. This confidentiality is worrisome because Parliament is a very powerful and impactful institution. Parliamentary Privilege is another exception to the RTI Act, and since it is uncodified, the CIC usually just refers any such dispute to the Speaker so as to avoid a breach of privilege notice and one cannot be certain of any action from the Speaker's side. The argument that is given by these Committees is that such secrecy is important for free and frank discussions. However, he pointed out that this is the same argument that was advanced by the bureaucracy against disclosing file notings, but the CIC put its foot down in that case. Another argument that is advanced is regarding the protection of the witnesses that appear before these Committees. This is refuted by him because first, law making is hardly ever concerned with whistle-blowers instead of academics. Moreover, even if that is the case, exceptions can be made for them rather than making secrecy the general rule. The last problem regarding law making that was pointed out by him was the mindboggling kind of laws made through delegated legislation. One example is the creation of a data exclusion regime in the Ministry of Agriculture by delegated legislation. In an excellent judgment, Justice Nariman pointed a finger at this problem and exhorted the Legislature to come out with an Act for making the process of delegated legislation transparent and consultative along the lines of the United States' Administrative Procedure Act. The only existing safeguard now is that the last provision in any Bill is that the related Rules must be laid down before the Parliament.

Richard Jefferson

Prof. Richard Jefferson followed Mr. Reddy with his speech exhorting the IP community to use precise terms. His thrust was that we need to move from the terms 'Open Access' and 'transparency' as Open Access merely means you can read the information and not necessarily that you can do anything with it, unlike Open Source which means there's a

source code with which something can be done and transparency could mean an avalanche of irrelevant information rather than clarity.

He stated that earlier many jurisdictions would give data in .tif format which was expensive to obtain and not searchable. Here he asks the audience whether the transparency that is needed is recreational or actionable. And that right now, the IP community is only looking at recreational transparency only. And it must be actionable transparency that is aimed at for there to be benefit to society.

In reference to Prof. Iyengar's speech he stated that it is government practice which restricts data available and usable.

In illustrating instances in which governments buried him with irrelevant data, Prof. Jefferson stated that transparency needs clarity and it is clarity which is needed from transparency. He stated that any outcome of openness involves persistence and lack of ambiguity in data made open. He stated that the five Ws: Who, What, When, Why and Which should be understandable from the data.

Prof. Jefferson added that public good is not served by private providers. He pointed out that a lot of the data is privately made available by entities like Thomson Reuters but for a very steep price. This is not the same as putting it in the public domain. He stated that he had to convince governments as regards this point that data being already out there with a private player is not the same as it being made public and that understanding government's motivations has really to do with sociology. He concluded his speech stating that while he has had very pleasant conversations with many Controller Generals, of which there have been great many, those conversations usually went nowhere.

Open Access IP Dictionary

Prof Basheer discussed his concept of an Open Access IP dictionary, a collaborative project between SpicyIP and Nirma University. According to him, the *raison d'être* for the project was that the technical jargon that the “IP priesthood” typically deployed; jargon that restricted access to the IP debates for the common man. The dictionary was meant to explain this jargon in a simple manner so as to deconstruct it and democratise the discussion around intellectual property.

He was happy to note that since the start of the conference, while discussing the idea with Prof. Jefferson, he volunteered to sign on as a collaborative partner and had already proposed wonderful ideas to take this to the next level. He proposed to the audience that if any of them wanted to join the project, they may inform him.

He then explained the genesis of this project in 2008 from a book he read then titled: “The Professor and the Madman”. This book documented the historic “crowd sourcing” efforts behind the formulation of the first edition of the Oxford English Dictionary (OED) which saw people all over the world contributing to the definition of words over a course of seventy years and that he may follow such a model.

He stated that Open Access has to be intelligible and the conceptual and jurisdictional divide has to be explored to for example see if India understands matters in a different way from the US.

A few members of the audience also volunteered to partner in the project. Prof. Jefferson supplemented Prof Basheer’s speech and stated that there are two different clergies and that includes the scientists and the administrators and any Open Access dictionary should be universally accessible and intelligible for both and for professionals just as much as for students. Following which Prof Basheer commented that Consilience means unity of

knowledge and that he himself had to look up this word and he speculated that getting agreement on what Open Access and Open Source means is going to be one of the biggest challenges in the project.

SESSION IV, PANEL 6: THE FUTURE OF IP AND THE COMMONS – FRIENDS OR FOES?

This session was moderated by R. Muralidharan.

Zakir Thomas

The first speaker, Mr Thomas spoke of how available policies governing intellectual property (IP) are market linked. Many of the actors behind the IP regime – e.g. those who develop technology for smartphones – were associated with U.S. universities or U.S. defense. It was the state's investment that drove innovation – for instance, the NIH's investment in healthcare. The progress of innovation, from academia to pre-clinical trials, entailed risk-intensive discoveries/inventions. 70% of pharmaceutical sales thus depended on products developed elsewhere.

Mr. Thomas then went on to speak of neglected diseases such as TB, which he cited as instances of market failure. While the number of patents had gone up, no new drugs had come up except with public philanthropic support. Compounds being discovered were not getting translated into medicines. The sponsors of these trials were mostly companies using government funds to get clinical trials approved. This, Mr. Thomas argued, translated into the gap between need and availability of drugs stemming from the excessive focus on markets. In the instance of Janssen, which produced a drug for TB, regulatory approval had only been sought in the United States and not in countries in the tropics where the disease was actually widespread.

The solution Mr. Thomas proposed was the creation of a global fund for clinical trials, whether sponsored by a company or the academia. He pointed to the existence of a similar fund for agriculture. He also argued that the de-linkage of research and development from markets was a necessary but insufficient condition. The insufficiency stemmed from the inadequate regulatory capacity in countries in the tropics with neglected diseases. He proposed a two-tier approach as an answer, to enable developed markets to have exclusive patents while reserving only the right to earn royalties in developing markets. The latter would be necessary because of the inability of a single producer to market drugs to the entire population. He ended the address by stating that drugs could not be accessed without market competition in those countries and stressed the importance of a competitive market as a powerful tool to ensure access.

Tabrez Ahmed

Prof Ahmed began his address by contextualizing it based on the internet's availability to all people, its self-replication made faster due to its openness, and the struggle of America to control the internet. The open source movement had exposed a zone of conflict, as the open architecture of the internet was conducive for promotion of innovation, while the excessive copyright protection often favoured by IP activists was something Prof. Ahmed believed inhibited consumer freedoms. In this background, Prof. Ahmed stressed the necessity for examining the legitimacy of the moral underpinnings of IP rights. In questioning whether IP rights were natural and grounded in the deontological tradition, Prof. Ahmed favored Locke's ideas over utilitarianism to argue for more rights for an open-source model. He advocated a system of limited IP, which in his opinion was justified to reward innovation. Strong but sensible entitlements would be needed to moderate free riders. At the same time, he pointed out the problems caused by certain innovation commons. The cookie, for example, was convenient for websites but eroded private rights.

Firewall levels, such as those in Blackberry, provided security and protection but also jeopardized crime detection.

Prof. Ahmed's final comments were about the role of the judiciary and of policy makers. He believed that the two groups saw IPR as important, which militated against the notion of commons and accorded fewer rights to the poor. He believed that the balancing act was especially crucial at the policy level, which at the given moment was twisted towards the commercial approach. He pointed out that the web did not pay attention to IP, and the success in various sectors depended on increasing returns as a result of this. He believed that in addition to tightening controls, a liberal interpretation of patent laws threatened innovation as cyber patents might freeze innovation. However, Prof. Ahmed was also ferociously against the polar opposite of perfect private control, and ended by calling for a well-researched balancing act.

Arun Mohan

Mr. Mohan began by highlighting the mercenary origins of IP and pointed out that patents regulated not just inventions but markets. He proposed that the Lockean theory of appropriation was accompanied by a Lockean caveat, and IP could therefore not be looked at in an exclusionary sense. He argued that innovations which were derivative and not disruptive required licenses as access to a vibrant pool of common knowledge was needed.

Drawing from his practical experience as an advocate, Mr. Mohan pointed out the exceptional ease in obtaining IPR, particularly with respect to copyrights and trademarks. In India, IP stakeholders dealt with five mainstream authorities, each having their own rules in spite of implementing a common statute. He believed the pre-TRIPS era was more distributively just, with parity of information and knowledge that would be deemed illegal from today's perspective. There was a lack of clarity on the extent of public domain as compared to IP. The sole determinant of this was the judicial instinct, which depended on

the application of sacrosanct legal principles with no predictable outcomes. The resulting interpretation was often for reasons which were alien to the law.

Mr. Mohan expressed his faith in the correctness of the call, but acknowledged its lack of uniformity, predictability or any foundation in the law. He argued for the incorporation of a dichotomy between the common and the uncommon, and the necessity of going against the grant of a presumptive statutory right. This approach was to be based on fundamental legal principles such as the lack of arbitrariness and discrimination, bearing in mind the dichotomy between the public domain and IP. With regard to the legal arsenal available to IP owners and proponents of the public domain, he pointed out that courts often resolved this in favour of IP owners by classifying the disputes as inter-party rather than recognizing the wider implications. He finally criticized the reaction of public domain advocates as being highly romanticized and anarchic, and pointed out their inability to destroy the structure of knowledge because a lot of it was not available in the commons.

Sunita Sreedharan

Ms. Sreedharan pointed out how IP has historically been protected through trade secrets, and knowledge passed on only if the next person was deemed worthy of it. She argued that this approach did not serve society, but the trade-off was the disclosure of information. While the quid pro quo approach required one to release knowledge in the commons, this ignored the need to create the requisite IP in the first place. The flipside of putting IP in the public domain was the loss of protection over what you had created, especially in terms of quality control. An IPR regime, therefore, had to be a friend and not a foe of the commons.

Ms. Sreedharan particularly emphasized the role of IP as currency in negotiations. The creator of IP, according to her, had to look at the pricing at the time of receipt of funds and at the time of the launch of the product. The first issue was based on a problem-solution

approach – if they were to not file for IP, they would not be in a position to negotiate further for funding and collaborators.

Ms. Sreedharan finally postulates that without IP it would have been impossible to put together the vast body of work, which could always be put in the public domain later if needed. Without the creation of IP, she believes the creation of a commons would have been impossible, as there would just have been a mass of trade secrets.

Q&A Session

The first question was directed at Ms. Sreedharan. The person wished to know the relevance of trade secrets in a world where scientific knowledge made the duplication of knowledge and processes easier. In her response, Ms. Sreedharan acknowledged that reverse engineering had become extremely easy in some areas of technology. She also pointed out that ground-breaking discoveries often remain confidential until the company releases them in the public domain. The latter ought to be protected until a decision is made to make it public.

The second question, posed to the panel as a whole, was about the future of the patent system, given the present indeterminacy. The questioner also wanted to know about the utility of IP as an investment in that context. Ms. Sreedharan responded by stating that the investment potential of IP had to be examined on a case-by-case basis. With regards to the future of the patent system, she answered that that was also subjective. To substantiate her case, she discussed the differing impact of the 20-year rule for patents on software and on the life sciences. Regulatory approvals were not comparable, given that they were mandatory while patents were not. And therefore it is likely that patent law would evolve further. Mr. Thomas's response was centered on how these conflicts would play out in the market in the context of bilateral agreements. This added to the uncertainty underlying the patent system which led to the impossibility of predicting the effect.

The third question was related to the pricing of drugs and was about whether sufficient recognition was accorded to the investigation, or whether it was often over- or under-compensated. Mr. Thomas' response was with reference to the U.S. Congressional investigation regarding the pricing of Sovaldis, and how it was kept at the price so as to avoid pushback from civil society. He argued for the need to see the value brought to the market and not just investment protection.

The fourth question highlighted how most patents were based off improvements of older technology and questioned whether the same standard ought to be applied to them as new technology, which would not have the same level of return. Ms. Sreedharan replied that the demand for patenting came from society, including the funding agencies, the potential collaborators and even judges who have frequently asked why a patent hadn't been filed by the party in cases where derivative technology was contested. She reiterated her earlier point about the majority of innovations being incremental and breakthrough innovations being kept confidential until the infrastructure to put them in the market had been developed. She also pointed out how licensing regimes, particularly non-exclusive licensing, were barely understood and not widely known, which could be used effectively to bring down prices of patented technologies.

The fifth question pointed out that the effect of the IP system, particularly patents, on small entrepreneurs had not been discussed in the session, and asked how we could design a system that would be more favourable to small entrepreneurs. Mr. Muralidharan chose to take up this question, pointing out the strength of the anti-patent bias in India because of its socialist character, its refusal to take up the right to property as a fundamental right, and the government's ability to declare a patent as being in the public domain if so required. Mr. Mohan was to the point in his response, arguing that India's patent system worked exceptionally well for small and medium entrepreneurs due to cost-effectiveness and

liberality in the grant of patents. Dr. Ahmed pointed out how even firms with a low level of investment could have patents in China, which, by virtue of being protected in India, would affect small entrepreneurs here. Mr. Thomas argued that groups opposing software patents tended to be small start-ups while supporters tended to be giants like TCS and Infosys. Ms. Sreedharan looked at her experience as an advocate and argued that the filing of patent applications was often used in lieu or in addition to the non-disclosure agreements in order to outline the scope of the invention by small and medium entrepreneurs, and were also used by them to push for credibility before investors.

The final question posed to the entire panel was with regard to pharmaceutical patents. Given the questions of healthcare, law and international politics involved, the person wanted to know the definitive conclusions that could be drawn. Mr. Mohan responded that it was impossible to have an objective standard. Ms. Sreedharan argued that the need to abide by the patent system to bring research material into public domain must be balanced with health policy, public opinion etc. to leverage a balanced system to create something better. Mr. Thomas replied that it was the most complex question in the world and even three WTO reports were insufficient to address it.

Closing Comments by the Moderator

In closing, Mr. Muralidharan spoke of the differences in the way the IP system had been administered. He pointed out the extensive use of public money pertaining to the cost of generating approval and getting patents. He closed by talking about how the demand for IP as commons was becoming louder, which was making the IP system more humane, even in countries like the US.