

ACCESS TO KNOWLEDGE IN INDIA

Lea Shaver*

This essay is a preview of the author's upcoming book Access to Knowledge in India: New Research on Intellectual Property, Innovation, and Development, an edited volume which contains contributions from various scholars on the access to knowledge alongside development and trade. While the essay seeks to bring together views and insights gleaned from various chapters of the book, the author simultaneously pushes forward her argument concerning the role that courts have to play in toning down excessive intellectual property protection using the language of human rights. In particular, the author argues that constitutional law has the potential to further socioeconomic rights which are affected by intellectual property protection. The author feels that Indian constitutional litigation has taken the right step in this direction and is a model for courts in other jurisdictions as well as for international norm-setting.

I.	THE ACCESS TO KNOWLEDGE PERSPECTIVE	88
II.	PHARMACEUTICAL PATENTS AND THE RIGHT TO HEALTH	90
III.	EDUCATION FROM LIBRARIES TO THE INTERNET	92
IV.	MANAGEMENT OF AGRICULTURAL AND TRADITIONAL KNOWLEDGE	94
V.	THE RIGHT TO SCIENCE AND CULTURE	96
VI.	CONCLUSION: A ROLE FOR THE COURTS	98

It is truly a privilege to take this opportunity to address the legal scholars, practitioners, and students that form the audience of the National Law School of India Review. As an American law professor writing in the areas of intellectual property (IP) and human rights, I have had many occasions to be inspired by and

* Lea Shaver is an Associate Professor at Hofstra Law School in New York. She is the editor of two recent books on access to knowledge: ACCESS TO KNOWLEDGE IN EGYPT: NEW RESEARCH ON INTELLECTUAL PROPERTY, INNOVATION AND DEVELOPMENT, with co-editor Nagla Rizk (Bloomsbury Academic 2010); and ACCESS TO KNOWLEDGE IN BRAZIL: NEW RESEARCH ON INTELLECTUAL PROPERTY, INNOVATION AND DEVELOPMENT (Bloomsbury Academic 2010). Both works are available in their entirety for free download on a Creative Commons license at <http://ssrn.com> and <http://leashaver.net>. The present work is also licensed to the public under the terms of the Creative Commons Attribution 3.0 Unported license.

learn from innovations in Indian scholarship and jurisprudence. This has particularly been the case in the course of working on my most recent project, an edited volume with my colleague Ramesh Subramanian, entitled *Access to Knowledge in India: New Research on Intellectual Property, Innovation, and Development*. Forthcoming from Bloomsbury Academic on a Creative Commons license, the volume features contributions from both well-established and rising scholars. Examining topics ranging from the pharmaceutical industry to the role of libraries, from agricultural innovation to traditional knowledge to rural Internet access, these authors make an important contribution not only to their particular fields of research, but also to the emerging body of scholarship on access to knowledge generally.

This essay offers a glimpse of this forthcoming book, weaving together insights and arguments from the various chapters, putting the contributors into conversation with each other. In the process, I highlight what new understandings may be reached of “access to knowledge” as a framework for thinking about the public interests at stake in innovation policy, in India and around the world. I also seek to develop a particular argument of my own: in favor of a broader role for courts in moderating excessive IP protectionism, through the framework of human rights. Specifically, I argue that constitutional jurisprudence must explicitly acknowledge and protect socio-economic rights impacted by IP law; and that the tensions between IP and human rights are much broader and more systematic than has heretofore been acknowledged. It is a particular privilege to have been invited to address this argument to the present audience. I believe that the unique character of Indian constitutional litigation today offers a particularly promising opportunity to develop this type of case law, setting a much-needed example for other countries’ courts and for the future elaboration of international norms.

I. THE ACCESS TO KNOWLEDGE PERSPECTIVE

The access to knowledge perspective asks a simple question that is long overdue in IP law and policy: As innovation progresses, who is able to benefit from it and who is not? What is the role of the law in determining who gets in the door, and who is left outside? And might not these barriers to access actually have a negative impact, not only on those individuals who cannot afford the higher prices, but also on economic growth and future innovation?

Knowledge can come in many forms, including inventions, ideas and information. In all its forms, knowledge is not merely of intellectual interest. It is also useful in very practical ways. Knowledge can make people healthier, as when new scientific data drives a doctor to recommend a different treatment, or when

new and more effective medicines are introduced. Knowledge can provide new opportunities, as when communications technology helps a small businessperson or farmer sell their goods for a fairer price, or a textbook or website helps a student acquire new and useful skills. Even forms of knowledge that are primarily designed for entertainment, such as music, novels and movies, are part of a shared culture that connects us as a society and adds meaning to our lives.¹

To a great extent, everything that makes our lives better depends on innovation, ideas, and information. Quite often, however, the law treats such knowledge as the exclusive property of a particular individual or corporation. It gives a single owner the right to prevent anyone else from having access to use and benefit from it, sell goods based on it, or improve upon it. This legal right to exclude enables the owner to charge others for access to the knowledge. Often, the price will be very high, because the right holder can also exclude potential competition. The resulting higher prices are not an accident or unwelcome side effect of IP protection. They are the very point. In theory, these higher prices will motivate greater production of new knowledge.

Relying on exclusion to promote innovation, however, has very significant counterproductive effects. For it is in the diffusion and application that innovation achieves its social impact. This has an obvious importance for social welfare when we are talking about forms of knowledge that can make us healthier, better educated, or more secure. The rapid and wide spread of knowledge also has a very important impact on economic growth. If businesses are slow to gain access to new technologies, ideas, and information, this limits their productive potential. From the perspective of the public good, then, wide and rapid diffusion is essential.

From the perspective of the person holding the IP right, however, diffusion may or may not be a priority. For some innovations, pursuing rapid diffusion – offering the new product at an affordable price and seeking a large market – will make perfect business sense. For others, the right holder may see an advantage in restricting diffusion, charging a premium to a smaller pool of customers. In certain sectors, the right holder may realise that they can charge exorbitant fees, and count on insurers or taxpayers to foot the bill. When this happens, IP protection is in tension with the public interest in diffusion. It then becomes very important to ask whether our IP policy is striking the right balance between business incentives and broader access.

¹ See, Lea Shaver & Caterina Sganga, *The Right to Take Part in Cultural Life: On Copyright and Human Rights*, 27 WISC. INT'L L. J. 634 (2010), available at <http://ssrn.com/abstract=1437319>.

The scholars, activists and policymakers affiliated with the access to knowledge movement are united in a large part by their shared conviction that we have not appropriately balanced these concerns.² Rather, law and policy have swung far too far in the direction of excessive protection, serving private interests rather than public ones. A restored balance can only be achieved by a greater recognition of and emphasis on the value of access to knowledge.

Thus far, the argument for legal reform to better promote access to knowledge has been directed primarily within the framework of development and trade. I suggest that it is time we supplemented this approach with a complementary one: taking seriously the importance of access to knowledge for human rights. This implies also recognising a role for courts in promoting and defending these rights in the face of misguided IP protectionism.³

II. PHARMACEUTICAL PATENTS AND THE RIGHT TO HEALTH

Perhaps the most obvious intersection of IP and human rights appears in the context of pharmaceutical patents and the right to health. From the Indian perspective, the tension between patent protection and affordability of health care is particularly evident. Any discussion of access to knowledge as a human right would do well to start from this beginning point.

In their jointly authored chapter for *Access to Knowledge in India*, Chan Park and Arjun Jayadev examine the impact that newly heightened IP protections have had on India's role as "the pharmacy of the developing world." The 2005 Patent (Amendments) Act was enacted to implement India's international obligations under the Agreement on Trade-Related aspects of Intellectual Property Rights (TRIPS). These amendments reintroduced patent protection for pharmaceutical compounds in India for the first time since 1972. The Act also responded, however, to concerns expressed by civil society groups opposed to TRIPS, about the impact of pharmaceutical patents on access to medicines.

Park and Jayadev document the unique successes of India's legislature in taking maximum advantage of the optional flexibilities available under the WTO

² See generally, Amy Kapczynski & Gaëlle Krikorian, *ACCESS TO KNOWLEDGE IN THE AGE OF INTELLECTUAL PROPERTY* (2010), available at http://mitpress.mit.edu/books/full_pdfs/Access_to_Knowledge_in_the_Age_of_Intellectual_Property.pdf; Amy Kapczynski, *The Access to Knowledge Mobilization and the New Politics of Intellectual Property*, 117 *YALE L.J.* 804 (2008).

³ I have also developed these arguments in a recent article: Lea Shaver, *The Right to Science and Culture*, 2010 *WISC. L. REV.* 121-184, available at <http://ssrn.com/abstract=1354788>.

regime. India's implementing legislation set stricter substantive standards for obtaining pharmaceutical patents than those adopted by most other countries. It also enacted a number of new procedural safeguards, including patent opposition procedures that may be utilised by generic drug companies as well as by public interest advocates.

For pharmaceutical companies, enormous potential profits are at stake in the implementation of these rules; for some patients, life itself may be at stake. Thus it should come as no surprise that the Patents Act would become the focus of important litigation. According to Park and Jayadev, these cases are establishing *"a unique line of Indian jurisprudence that injects fundamental public health considerations into how patent law should be interpreted."* The Madras High Court upheld the constitutionality of a key statutory limitation on drug patents, noting the government's *"Constitutional obligation of providing good health care to its citizens."*⁴ The Delhi High Court refused to grant an interim injunction against the off-brand marketing of a life-saving drug as inconsistent with the constitutional right to life of patients.⁵ The Delhi Patent Office, too, has recognised the value to *"give a strict interpretation of patentability criteria, as decision... thereof shall affect the fate of people suffering from HIV/AIDS for want of essential medicine."*⁶

As Park and Jayadev take care to highlight, these cases do not represent the invocation of human rights to directly challenge IP laws. Rather, they treat the right to health as a factor guiding the interpretation and application of the legislature's patent statute. It is thus far from clear that courts would have the stomach to defend the right to health by striking down "TRIPS-plus" legislation, such as new protections for data exclusivity,⁷ or mandating better administrative procedures for the issuance of compulsory licenses—an option preserved under the 2005 Amendments but not yet effectively deployed. Meanwhile, a robust consideration for the right to health even in these limited contexts depends on the continued active advocacy of public health organisations. In this process, the authors suggest there is a danger that these venues subsume the movement's energy for a deeper critique of pharmaceutical

⁴ Novartis v. Union of India, (2007) 4 MLJ 1153, ¶ 19 (Madras High Court).

⁵ Roche v. Cipla, I.A. 642/2008 IN CS (OS) 89/2008, ¶ 85 (Delhi High Court).

⁶ *Boehringer Ingelheim Pharmaceuticals*, Application 2845/DEL (2008) (Delhi Patent Office).

⁷ The term "TRIPS-plus" refers to intellectual property protections that go above and beyond the requirements imposed by the Agreement on Trade-Related Aspects of Intellectual Property Rights. Data-exclusivity rights are one example. These would prevent generic companies from relying on existing clinical trial data to prove safety and effectiveness when introducing generic versions of existing drugs. The intended effect of data-exclusivity rights would be to give pharmaceutical companies a long period of legally-enforced market exclusivity, even in the absence of a valid patent.

patents that is still very much needed. They also point out the instability of this uniquely Indian jurisprudence in the context of a broader, and perhaps unwise, reliance on British patent case law as a source of precedent.

Whatever its limitations, Indian jurisprudence on access to medicines is well ahead of the global curve in explicitly confronting the tension between pharmaceutical patent protection and the right to health, even compared to other developing countries with sizeable generics industries.⁸

III. EDUCATION FROM LIBRARIES TO THE INTERNET

Access to knowledge is not only a question of patent law. The broader scope of this framework may be highlighted by considering two additional aspects of access to knowledge explored in the forthcoming volume: the role of public libraries and efforts to close India's digital divide.

In a chapter exploring the history and future of India's public libraries, Prashant Iyengar seeks to step back from the Access To Knowledge (A2K) movement's predominant preoccupation with IP and communications technologies. If the task of access to knowledge is merely to ensure the widest dissemination of an unproblematic, unquestioned good, then surely the library is its highest symbol. But libraries themselves, Iyengar reminds us, have been the site of political contestation and negotiation over key questions of social justice, economic development, and human liberty. Despite their grounding in a democratic ethos, the author argues, public libraries remain "*vigorously controlled sites*" where a "*privileged clientele*" is permitted to access "*approved*" knowledge only. India's readers, of course, seek to satisfy their appetites in less-approved venues as well, giving rise to a thriving market in pirated books. Examining these conflicts in broad historical perspective, Iyengar asks what lessons may be offered for modern ambitions to promote access to knowledge.

⁸ Brazilian jurisprudence on the right to health shows a weakening resolve to guarantee universal access to medicines in an era of higher drug prices, and has not yet made a connection between realization of this right and pharmaceutical patents. Egyptian courts have shown greater awareness of the implications of patent law for public health, but have been hesitant to connect their jurisprudence to any notion of human rights. See, Monica Steffen Guise Rosina et al., *Access to Medicines: Pharmaceutical Patents and the Right to Health*, in ACCESS TO KNOWLEDGE IN BRAZIL: NEW RESEARCH ON INTELLECTUAL PROPERTY, INNOVATION AND DEVELOPMENT 103-34 (Lea Shaver ed., 2010); Hossam Bahgat & Rebecca Wright, *Access to Medicines in Egypt: A Human Rights Approach to IP, Trade and Health*, in ACCESS TO KNOWLEDGE IN EGYPT: NEW RESEARCH ON INTELLECTUAL PROPERTY, INNOVATION AND DEVELOPMENT 56-91 (2010). Both books are available for full-text download at <http://leashaver.net/books/>.

Iyengar also contextualises the public library as but the first in a line of technologies endorsed by the state as means for formal education and lifelong learning. The radio and television were each hailed in their time for their revolutionary educational potential. Of course, Iyengar reminds, each proved “spectacularly successful as mediums of entertainment,” but ultimately failed to achieve their higher-minded social goals.

Will this be the fate of the Internet in our own time? Such an outcome is suggested by the case of one market-based rural Internet initiative, detailed in Ramesh Subramanian’s chapter for this volume. TeNeT began with considerable investment and lofty ambitions for advancing rural development through telemedicine, crop advice, and vocational training. Within three years from startup, more than 3000 franchises had been sold to kiosk operators. Today, however, the network has collapsed to as few as 100 centers still operating and many of these at a loss. Video games and email have emerged as the predominant use of the technology, but have not been profitable enough to sustain the kiosks. According to the company’s CEO, the missing ingredient is valued content—the application side of the technology.

Not coincidentally, the content side of the equation emerges as a key strength of the more successful case study described in Subramanian’s chapter. This model is the M.S. Swaminathan Research Foundation’s Village Knowledge Centre initiative. Although provision of ICT technology is a central component, the project is self-consciously defined in terms of what distinguishes it from a standard Internet kiosk. This vision emerged from an earlier effort by the Foundation that was focused on the collection, curation, and dissemination of traditional knowledge. The Village Knowledge Centre model emphasises centralised, active collection and editing of ideas and information relevant to the village context and of particular importance for human development. Topics include: farming techniques, weather, government news, job and aid opportunities, loans, maternal health and hygiene, and educational accreditation. To disseminate this information to villagers, the program has developed an infrastructure that emphasises the human and community aspects as much as the technological. Subramanian reports that the Village Knowledge Centres are widely used, are valued by the community members, and are particularly benefitting women and children.

Juxtaposing the contributions of Subramanian and Iyengar, it is tempting to conclude that Village Knowledge Centres in fact represent an ideal model for the modern library. To be sure, the book itself has been marginalised here—in favor of the newsletter, radio address, and instructional video—in a way many bibliophiles would deem scandalous. This model is responsive, however, to the criticism of Sarah Kamala that public libraries have catered to the recreational reading needs of a small elite, with books largely irrelevant to the lives of rural people, while completely

ignoring the illiterate. In its emphasis on locally relevant knowledge, community management, and transformative impact on community relations, the Village Knowledge Centre model comes close to the ideal of S.R. Ranganathan, profiled by Iyengar as a pioneer in Indian library science. A 1933 quotation of Ranganathan's highlighted by Iyengar emerges as both relevant and prescient: *"Who knows that a day may not come... when the dissemination of knowledge, which is the vital function of libraries, will be realized by libraries even by means other than those of the printed book!"*

Iyengar also reminds us that the library should be viewed within the broader ecology of access to content. During the golden age of India's public libraries, support and use of the institutions was high because the domestic printing industry was almost nonexistent, and foreign books were extremely expensive, even by the standards of the middle and upper classes. The comparative neglect of public libraries today may reflect their receding relevance, Iyengar notes, as private means of acquiring books have become much more affordable. Toward this end the author highlights competition among low-cost printers, lax copyright restrictions, and a substantial grey market for pirated copies. The last is crucial. In Iyengar's words, *"it is the pirate industry that shows India up as a nation of voracious readers constantly endeavoring, against odds, to educate itself."* While commending the Open Access movement for lowering copyright barriers to certain materials, the author pushes us to resist the temptation to assume that the material produced and valued by the elite is the material that matters. Abstract notions of development, education and public benefit would do better, he suggests, to reckon with the real force of what people actually want and find useful.

IV. MANAGEMENT OF AGRICULTURAL AND TRADITIONAL KNOWLEDGE

The strength of the access to knowledge perspective has been in challenging the prevailing paradigm of IP protectionism. Giving producers stronger monopoly control over information-embedded products, these critics note, does not necessarily result in more effective incentives.⁹ The framing of access to knowledge highlights the costs of such unnecessary protection to values of inclusion and equity, as well as competition and innovation. The access to knowledge paradigm also comes with weaknesses, however. Access to knowledge cannot merely be about eliminating IP barriers, in the assumption that a more competitive marketplace will meet all our needs. Still less can we be content with "access" in some passive sense of merely consuming already-produced knowledge. Rather,

⁹ See, Eric E. Johnson, *Intellectual Property's Great Fallacy*, SSRN Working Paper Series (Jan. 23, 2011), available at <http://ssrn.com/abstract=1746343>.

our goal should be to empower broad sectors of society to participate not just as consumers of knowledge, but as co-producers. This in turn requires a greater reflection into the ways that knowledge is produced, shared, and appropriated in our society.¹⁰ In this vein, two contributions of this volume work to complicate the concept of access to knowledge and situate the true complexity of the task.

A chapter by Venkataraman Balaji and others explores these topics in the context of agricultural knowledge in India. It begins with the observation that despite the special importance of knowledge for improving agricultural yields and the special promise of the Internet as a vehicle for diffusing knowledge, very little relevant digital content exists. On YouTube, for example, how-to videos addressing farming techniques are vastly outnumbered by videos on cooking. Among those universities that have developed channels to share their knowledge in video format, none are agricultural universities. And although an agricultural science portal has been established within Wikipedia to encourage contributions to this field of study, coverage of even basic topics of agricultural science remains sparse and shallow. Conversely, current government efforts to diffuse agricultural knowledge have taken little notice of the potential of new communications technologies and web 2.0 platforms. According to the authors, eGovernment and Information and Communication Technologies for Development (ICT4D) initiatives have largely overlooked agriculture as a sector of potential. Formal agricultural extension centres remain the focus of agricultural improvement strategy, even as farmers report they acquire most information from their peers.

The contribution of Sudhir Krishnaswamy examines another type of knowledge management project: efforts to protect Indian traditional knowledge from “biopiracy.” This goal has been pursued through both defensive and offensive uses of IP law. On the defensive side, public interest advocates have challenged patents taken by foreign corporations based on traditional knowledge. While prevailing in the particular cases, Krishnaswamy suggests that these legal victories have achieved more in publicity than in real impact. Broad, proactive efforts were also organised to document Indian traditional knowledge in databases and archives, both to preserve it against loss for future generations and to prevent foreign patenting.¹¹ These defensive efforts sit easily with the perspective of access to

¹⁰ A foundational work on these questions is Yochai Benkler, *THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM* (2006), available at http://cyber.law.harvard.edu/wealth_of_networks/Main_Page.

¹¹ Under U.S. patent law, applicants may claim a technology or technique as a new and patentable “invention,” even where it is already widely known and used in another country, so long as it is newly introduced to the United States, 35 U.S.C. § 102(a)-(b); Description of the technology or technique in a printed publication, however, will prevent patentability in the U.S., no matter where in the world the publication was made. *Id.*

knowledge, as their fundamental aim is to keep traditional knowledge in the public domain. In greater tension, however, are the offensive strategies. One such approach is to encourage Indian companies to preempt foreign ones by acquiring patents first. Another is the effort to design special legal regimes recognizing a collective property interest in traditional knowledge, which could then be licensed for fees. To Krishnaswamy, modern state regulation of knowledge resources implicates the same troubling dynamics of earlier state management of natural resources. The risk is that the logic of agency self-preservation overwhelms the conservation goal, while vulnerable communities obtain no real benefits. A key difference between management of knowledge and management of forests, of course, is that the former is an infinitely renewable resource. Transforming this resource into property to be bought and sold is not necessary to its conservation and, Krishnaswamy argues, risks an ossification of the very knowledge commons from which it emerged.

These two chapters on traditional knowledge and agricultural expertise highlight a few common pitfalls of innovation policy. One of these is to assume that the challenge of knowledge production can be left solely to markets. As the examples offered by Balaji et al highlight, markets respond to perceived demand and ability to pay. A passing interest of wealthy American consumers in spicing up their cuisine with South Asian flavors will motivate greater market response than the urgent need of rural farmers to protect subsistence crops from ruinous disease. For this reason, markets systematically fail to deliver knowledge that truly has a transformative potential, an ability to reach the most vulnerable sectors of society and promote equity, rather than reinforce stratification. At the same time, government programs, despite the best of intentions, often fail in their missions. Too often, effectiveness at serving the poor becomes a secondary question, relegated to the background as an agency caters to more powerful unintended constituencies.

V. THE RIGHT TO SCIENCE AND CULTURE

Taken together, the five chapters described here highlight the complex challenges involved in efforts to promote greater access to knowledge. Whether we look to health or education, agriculture or rural development, traditional knowledge or modern technologies, knowledge makes all the difference. Yet it is not enough to treat innovation in the abstract. Once new knowledge is brought into existence, its social impact will be determined by whether its wide diffusion is encouraged or restricted. Achieving the right balance in IP policy is a necessary, but not sufficient, element in a broader access to knowledge strategy. It is also important to take account of institutional, societal, and market forces that shape

the knowledge ecosystem. What is the role of the law in this endeavor? Is law merely the handmaiden of access to knowledge policy, charged with executing the plan, once it is properly conceived? Or can legal principles also help to guide our understanding of the problem and our search for solutions?

I suggest that the latter is possible, through the framework of the right to science and culture. This right is recognised in the Universal Declaration of Human Rights' statement at Art. 27 that "*Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.*"¹² In an earlier article, I offered a framework for understanding this little-studied and still-less-applied provision.¹³ The text makes sense, I suggest, only when we appreciate that the treatment of media content and technological discoveries as market commodities is not inevitable, but in fact highly political. Law and policy have a profound impact on whether inventions, ideas and information goods will be widely accessible, or made artificially scarce. The right to science and culture is therefore best understood as expressing a commitment to preserve these varied forms of knowledge as a global public good. This commitment is grounded not only in a commitment to equality and inclusion, but also upon a recognition of the special character of knowledge as a resource that increases, rather than becoming depleted, the more widely it is shared. The purpose of this right is fundamentally at odds with the current direction of international IP law, which pushes for ever-greater privatisation of knowledge.

Confronting this trend from the framework of the right to science and culture would have several advantages. Structurally, it provides a new legal foothold to push for sensible IP reform. Courts and policy makers can "stand on" human rights mandates in interpreting existing IP treaty obligations and in opposing new ones. Rhetorically, it repositions the debate from one of mere national self-interest whereby each country seeks to obtain trade terms most favorable to its industries. It allows proponents of access and competition to take the moral high ground and focus attention on the public as beneficiaries of access and as rights claimants. Neither of these advantages is present in a framework that conceives of access to knowledge solely in terms of human development or economic growth. Recognition of the right to science and culture can go hand-in-hand with arguments based on other human rights, such as the rights to health, education,

¹² Art. 27, Universal Declaration of Human Rights, G.A. Res. 217A (III), U.N. Doc. A/810 (Dec. 10, 1948).

¹³ Lea Shaver, *The Right to Science and Culture*, 2010 WISC. L. REV. 121-184, available for download at <http://ssrn.com/abstract=1354788>.

and food. Its unique contribution, however, is to point the law away from a strategy of merely attempting to carve out limited exceptions to IP protectionism in areas of special concern, such as pharmaceutical patents, to the need for broader, more fundamental legal reform. The framework of the right to science and culture may also help correct for some of the rhetorical limits of the access to knowledge framework. The recognition of a right to *participate in* cultural life (rather than merely consume copyrighted works) and to share in *the process* of scientific advancement (as well as in its benefits) emphasises a more active role for individuals in the knowledge commons than might be presumed from the phrase “access to knowledge.”

VI. CONCLUSION: A ROLE FOR THE COURTS

To be sure, realising the right to science and culture is not a simple task. Government policy in the areas of education, culture, Internet governance, rural electrification, research and development, technological standards setting, and procurement all have roles to play. It is no simple matter to determine the best approach, from a policy perspective, or to specify when a government’s failure to take access into account rises to the level of a violation of the right.

In certain contexts, however, the jurisprudential questions are simpler. This is particularly true where government action itself is a prominent barrier to enjoyment of the right, which judicial review can correct. This is the case, for instance, when IP laws operate to impede wider access to new technologies or cultural content. Such laws should be treated as limitations on the right to science and culture—and other relevant rights such as health, education, or food—and be carefully scrutinised. Not every limitation will necessarily constitute a violation of the right. Recognition that human rights are at stake, however, can serve to bring greater attention to countervailing public interests in the process of interpreting and applying IP law.

I am far from an expert in Indian constitutional interpretation. Whether and how the right to science and culture may be actionable in India’s courts is a question best taken up by Indian jurists. The lead has already been taken, however, in the context of pharmaceutical patents and the right to health. With care and time, this may yet evolve into a broader rights-based approach capable of guiding national and international efforts on access to knowledge in a more positive direction.