INDIAN SOCIETY OF
ARTIFICIAL
INTELLIGENCE &
LAW

INDIAN SOCIETY ON
ARTIFICIAL
INTELLIGENCE & LAW

2021
ANNUAL
REPORT

INDIAN
SOCIETY O...
ARTIFICIA...
INTELLIGE...
LAW

2020-21
YEAR OF FOCUS

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ISAIL AND ITS FOUNDATIONS

The Indian Society of Artificial Intelligence & Law is a Registered Charitable Trust under the Indian Trusts Act, 1882. We are an India-centric research organization, whose areas of focus in research is encompassed within the domain of AI Ethics, Law & Policy. Founded by Abhivardhan in December 2018, ISAIL is an emerging research organization engaged in critical research in the spheres of AI Ethics and International Law, with its own Indian approaches for the global market & audience

THE OBJECTIVE

Our objectives are as follows:
- Educate and develop skills in AI Ethics Education & Legal Design
- Provide Critical Research-centric Solutions to Dynamic Issues of AI and its Pragmatic Influence on the Global Commons
- Lead an India-centric Global Approach to AI Governance & Contribute in Shaping International AI Governance

THE TEAM

ISAIL has a multi-departmental system of internal governance. Following are the leaders in the various initiatives and departments led and supported by ISAIL:

Abhivardhan
Founder, Chairperson & Managing Trustee
Editor-in-Chief, **Indian Journal of Artificial Intelligence & Law** [e-ISSN: 2582-6999] & **The Indian Learning** [e-ISSN: 2582-5631]
Incumbent President, **Indian Conference on Artificial Intelligence & Law**

Board of Trustees

Abhivardhan, Managing Trustee
Indu Bala Srivastava, Trustee
Anil Thakur, Trustee

The Secretariat

Suman Kalani Chief Research Expert (Honorary)	**Aditi Sharma** Deputy Chief Research Officer
Akash Manwani Chief Innovation Consultant	**Mridutpal Bhattacharyya** Deputy Chief Innovation Officer
Kshitij Naik Deputy Chief Operating Officer Chief Managing Editor **The Indian Learning** [e-ISSN: 2582-5631]	**Abhishek Jain** Chief Managing Editor **Indian Journal of Artificial Intelligence & Law** [e-ISSN: 2582-6999]

The Research Directorate

Ateka Hasan, Research Coordinator, Indian Strategy on AI & Law
Dev Tejnani, Research Coordinator, The Civilized AI

ACKNOWLEDGEMENTS & VISION STATEMENTS

ABHIVARDHAN

Chairperson & Managing Trustee
Indian Society of Artificial Intelligence and Law

It is becoming clearer that the facets of international AI governance would rely on self-regulation and the transformation of regulation technology. India therefore must invest and indulge in more glocalization - which must impart not just in the culture of entrepreneurship that we as a civilization have achieved centuries ago, but also through newer competitive avenues for the Global South in Legal & Policy Design & Thought Leadership. Leading in how to lead and how to design decision-making should be India's flair and goal, not materialism and certainly not, mediocrity.

I am humbled to offer an expression of gratitude to our former interns, former editors, former researchers and the current team of researchers and editors, who instrumentalize ISAIL and gauge it with positivity and innovation.

GLIMPSE OF 2020

SUMMARY

- We support two independent AI and Law publications founded by Abhivardhan, which is, **The Indian Learning [e-ISSN: 2582-5631] (now indexed in HeinOnline)**, and the **Indian Journal of Artificial Intelligence & Law [e-ISSN: 2582-6999]**.

- While **COVID19** became a global pandemic, we at ISAIL supervised near about **60+** students of law and other fields from various institutions in India through the **Indian Strategy on AI and Law Research Programme**'s internship framework.

- Our team published a special report on the COVID19 pandemic in the Indian context as per our short-term **COVID19.AI Project**.

- Abhivardhan published a series of papers on **international algorithmic law, Entitative AI & the Indic approach to Artificial Intelligence**.

- Abhivardhan founded the **Indian Conference on Artificial Intelligence & Law, 2020** and established a public diplomacy forum, known as **AI General Assembly**. **Mr Sanjay Notani, Economic Laws & Practice** is the current President of the Assembly.

- The first virtual edition of the Indian Conference on Artificial Intelligence & Law (**IndoCon 2020**) was organized on **October 1-4, 2020**. 20+ speakers, 350+ registrations & 9 selected papers for our Presentation Tracks graced the conference. The Conference Proceedings of IndoCon 2020, **AI & Glocalization in Law** was released after the conference.

- Our team of 8 contributing researchers and former interns developed the first AI and International Law Handbook, namely the **2020 Handbook on AI and International Law**, which spans **21 different fields** of public international law. In each of the chapters on these fields, the **intersectional relationship between the field and AI Ethics** has been discussed with case studies and illustrations. Mr **Benoit Sauveroche**, First Counsellor, **Delegation of the European Union to India and Bhutan**, European External Action Service, released the Handbook on March 5, 2021.

SOME STATS AT GLANCE

Internships

Q1
19%

Q3
41.4%

Q2
39.7%
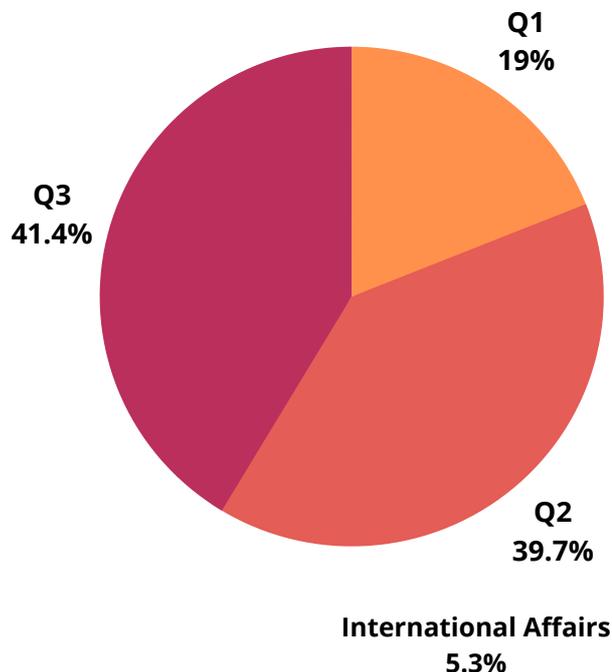
Chart 1: Students' Intake {Research Internships}
Research internships were cancelled for the months of October, November and December 2020.

This is the intake of students for research internships in the first 3 quarters of the year 2020.

International Affairs
5.3%

Intellectual Property Law
19.3%

Cyber Sciences
3.5%

Corporate Governance
5.3%

Economics & Development
19.3%

Constitutional Policy
38.6%
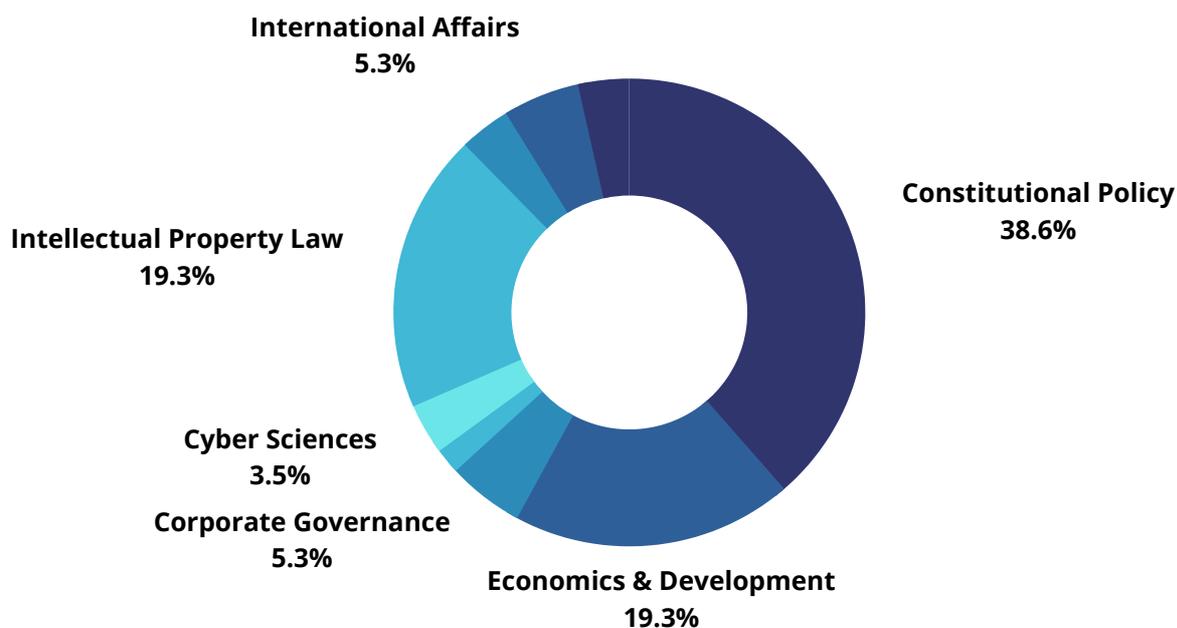
Chart 2: Research Area Diversity {Research Internships}

This is the graph representing which different main research areas of students for research internships in the first 3 quarters of the year 2020 were opted by the student interns (and provided in some cases).

These key areas were always opted with the objective to centralize in AI Ethics research.

10

Charts 3-4: Research Productivity and Innovativeness {Research Internships]

These graphs represent how many students who opted for research internships in the first 3 quarters of the year 2020 were productive and innovative in their research activities.

The charts depicts research productivity on the basis of these parameters:

- Academic, Intellectual & Schematic Brevity (█)
- Academic Credibility (█)
- Research Consistency (█)
- All-Comprehensiveness in Research (█)

Chart 3 is depicted below.
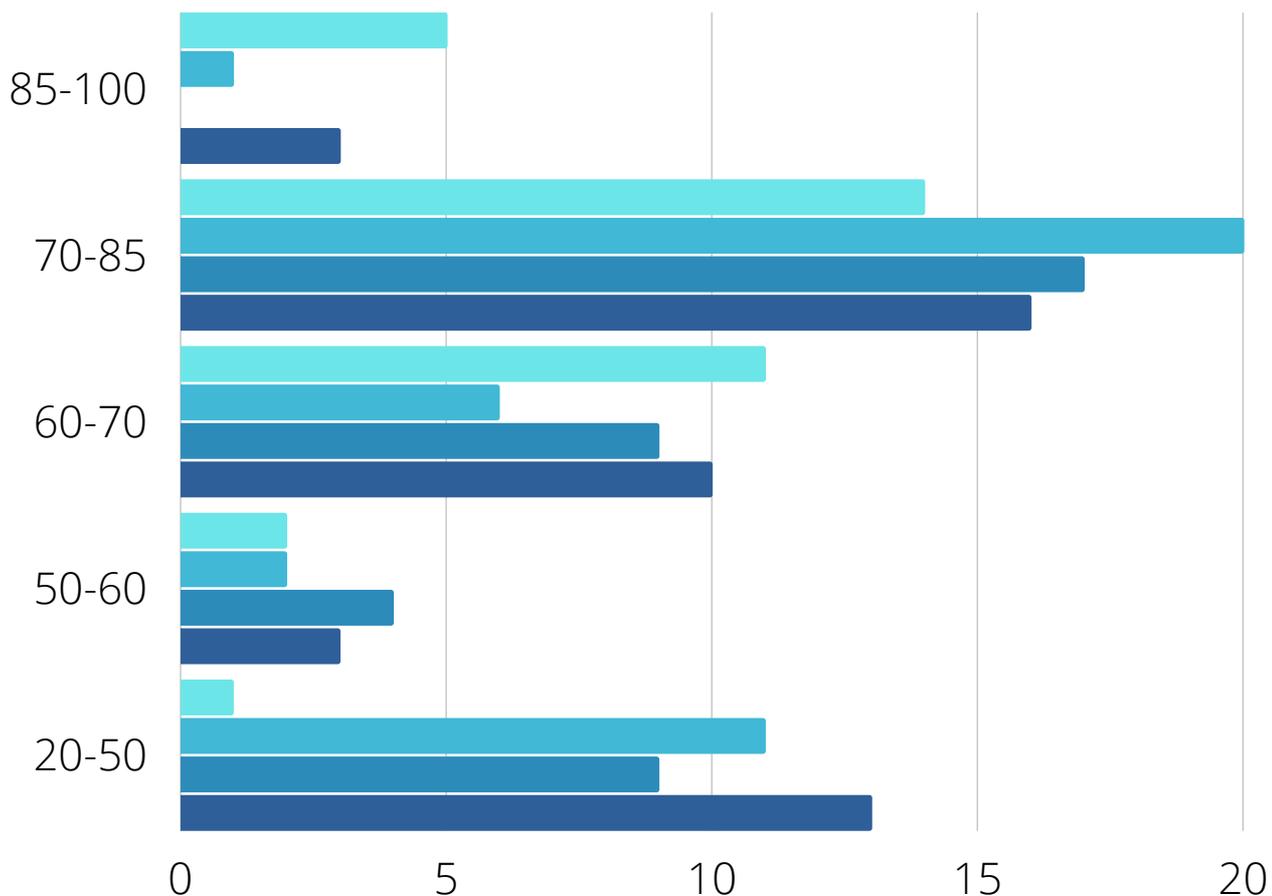
The scores 0-100 as mentioned in decreasing order in this graph depict the score ranges allotted to the interns in each of the areas of evaluation in their respective areas.

An Overall Evaluation has been done in Chart 4 before.
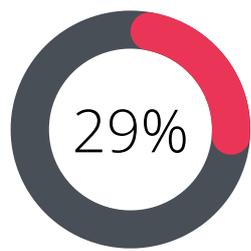
29% former interns approx. were **highly productive** in research.
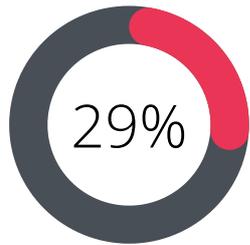
29% former interns approx. were **productive on average** in research.

Chart 5: Diversity in Research Issues Opted [Research Internship]

In order to convert this into a chart, we have mentioned in this chart in the common research areas the following:
(1) **Number of unique and uncommon research issues opted**
(2) **Number of analytical research issues opted**
(3) **Number of doctrinal reviews opted**

The chart is depicted in the next page.

25

20

15

10

5

0

Constitutional Policy
Economics & Development
Corporate Governance
Ecology
Cyber Sciences
Intellectual Property Law
Dispute Resolution
International Affairs
Miscellaneous

13
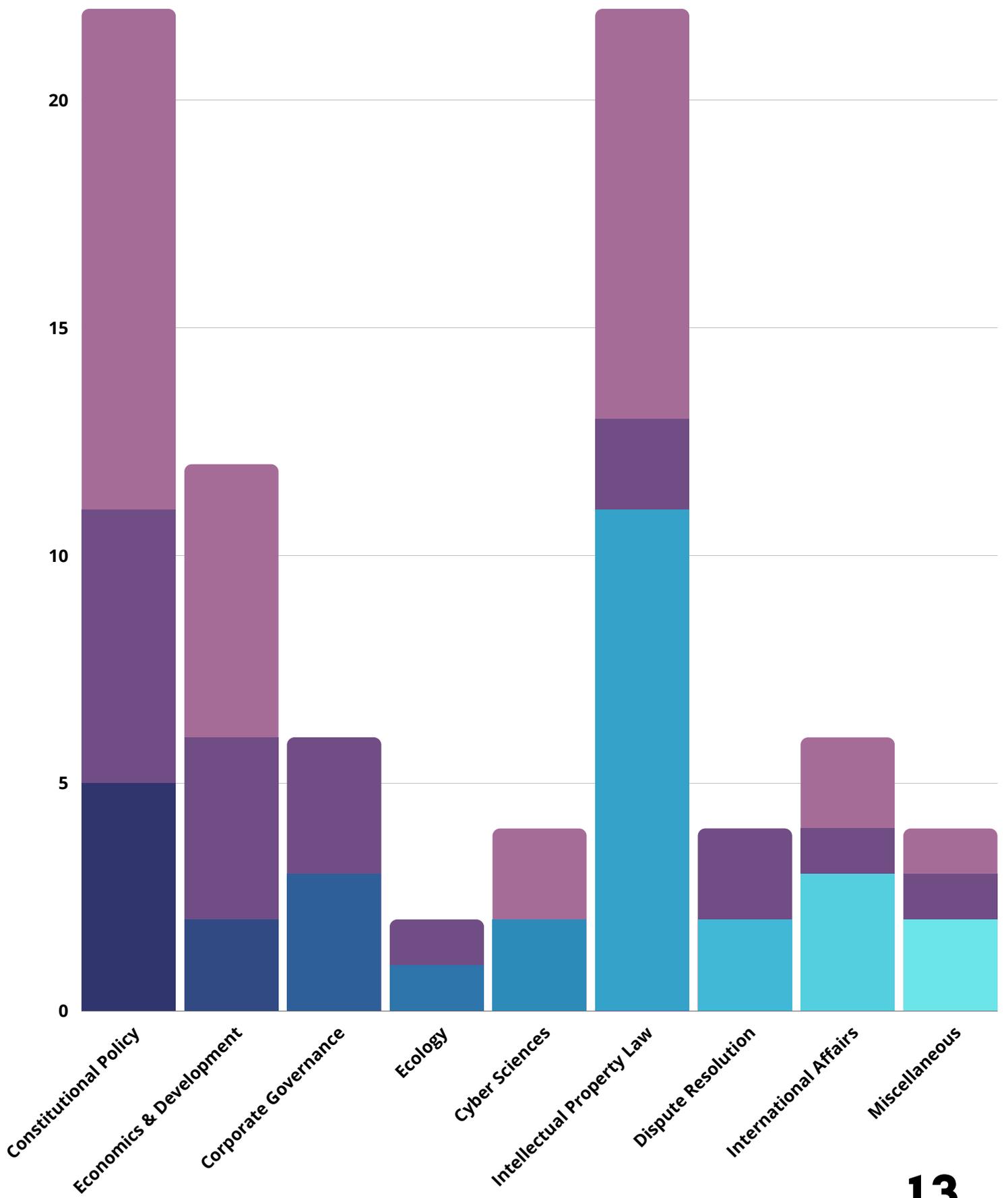
Chart 6: Kinds of Research Publications Achieved by ISAIL in the year 2020-21
This graph consists of the percentage of research-related publications published under ISAIL's Research Team. We do not include the following publications in this chart:

(1) Blogs
(2) Publications by Indian Journal of Artificial Intelligence & Law and The Indian Learning except for Testimonials and Interviews
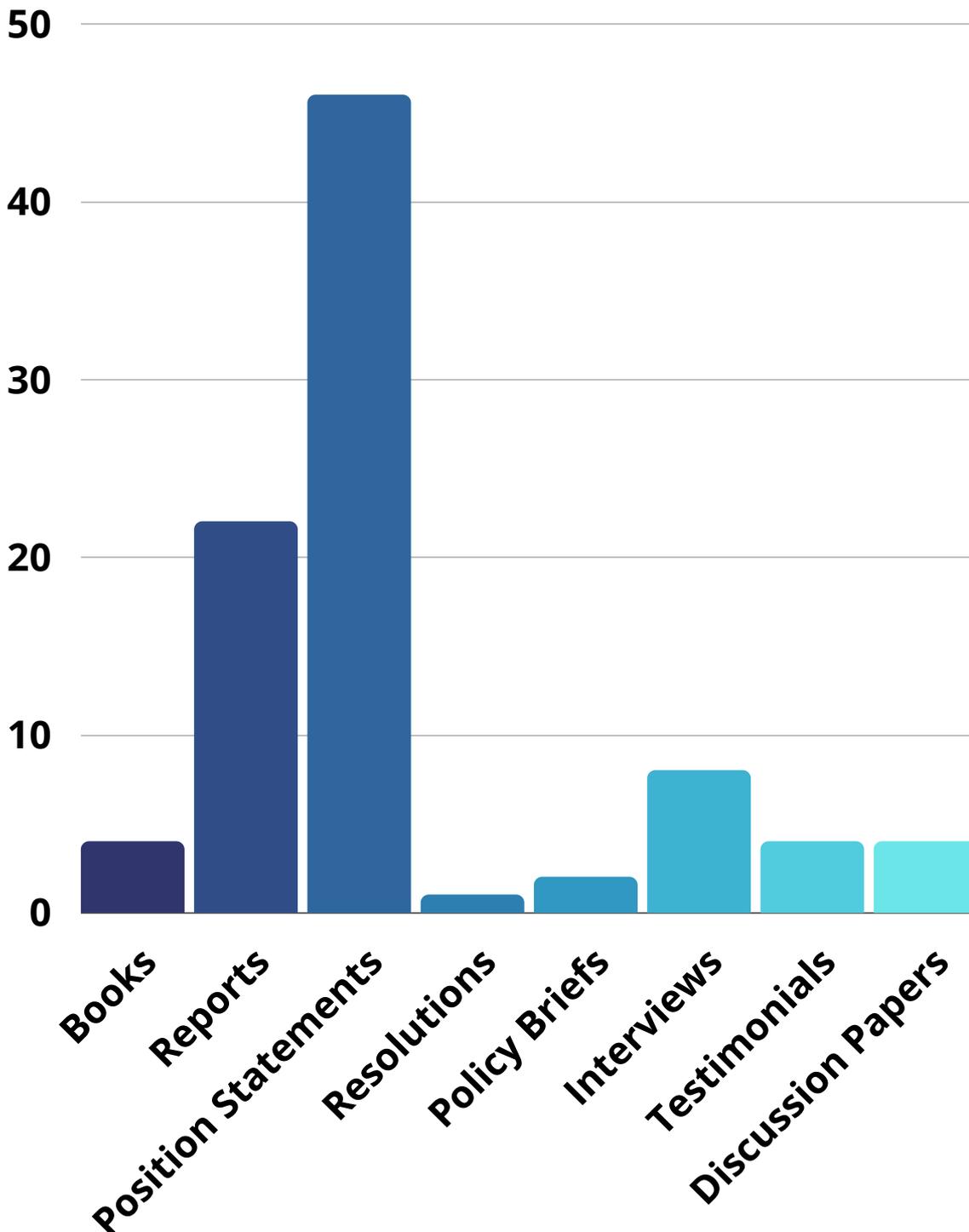
CATALOGUE
OF EVENTS

INDIAN CONFERENCE ON ARTIFICIAL INTELLIGENCE & LAW, 2020

IndoCon 2020, also known as the Indian Conference on Artificial Intelligence & Law, 2020 was conducted from **October 1 to October 4, 2020** through **virtual means**.

The conference had a tripartite format:
(1) The Track Presentations
(2) AI General Assembly
(3) Research Panels

Sanjay Notani
President
AI General
Assembly

Abhivardhan
President

HC Sandeep Bhagat
Vice President
AI General
Assembly
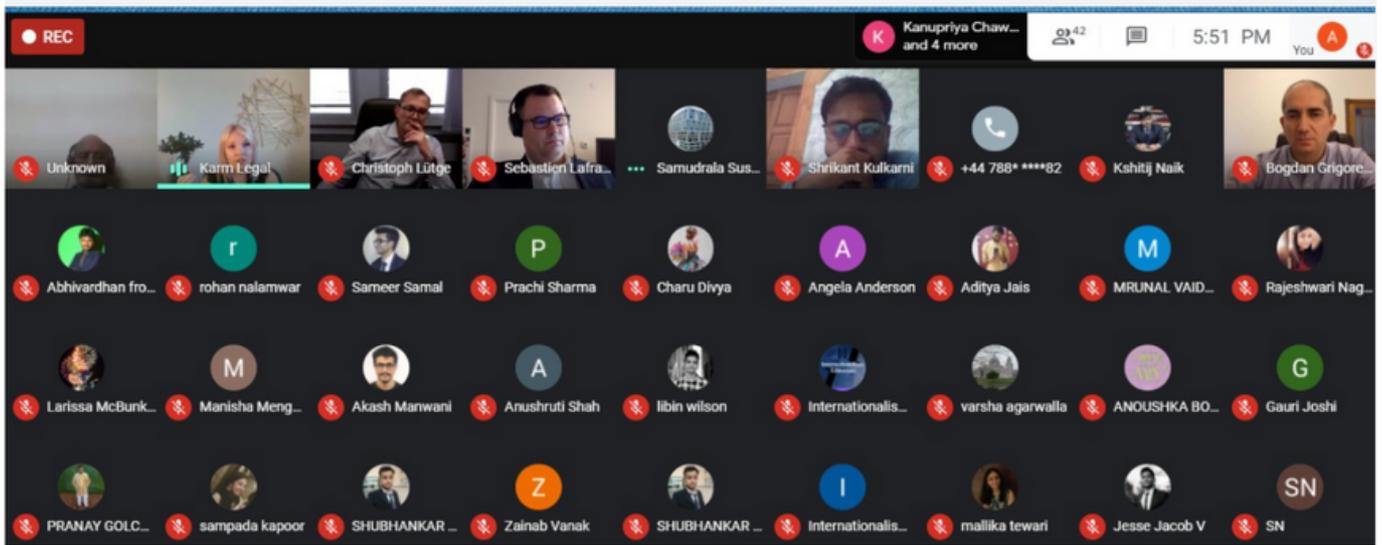
Panel Discussion 1
DECRYPTING AI REGULARIZATION AND ITS POLICY DYNAMICS

Sushanth Samudrala, Cyber Law Expert, Moderator
Prof Christoph Lutge, Director of the Institute for Ethics in Artificial Intelligence, Speaker
Luna de Lange, Partner and Data Protection Officer at KARM Legal Consultants, Speaker
Udomo Ali, Chief Executive Officer, Global Law Assembly
Bogdan Grigorescu, AI Platform Manager, Combined Intelligence
Sébastien Lafrance, Crown Counsel (Prosecutor) for the Public Prosecution Service of Canada, Speaker

Panel Discussion 2
ALGORITHMIC DIPLOMACY, GEOPOLITICS AND INTERNATIONAL LAW: A NEW ERA

Abhivardhan, President, IndoCon2020, Moderator
Eugenio Vargas Garcia, Senior Advisor to the President of the UN General Assembly, Speaker
Emmanuel Goffi, Director of the Observatory on Ethics & Artificial Intelligence, Institut Sapiens, Speaker
Roger Spitz, Founder, Techistential and Chairman, Disrputive Futures Institute, Speaker
Nicol Turner Lee, Chief Executive Officer, Senior Fellow, Center for Technology Innovation, The Brookings Institution, Speaker
Bogdan Grigorescu, AI Platform Manager, Combined Intelligence, Speaker

Panel 3

October 3, 2020
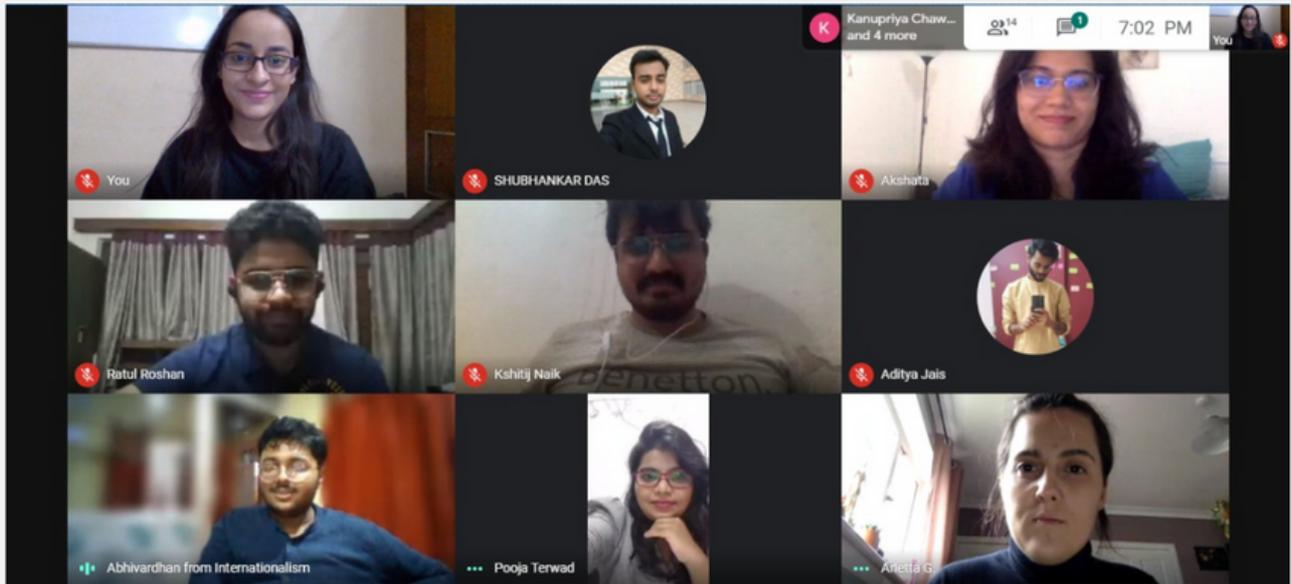
Panel Discussion 3
ALGORITHMIC TRADING & MONETIZATION: POLICY CONSTRAINTS FOR DISRUPTIVE TECHNOLOGIES

Arletta Gorecka, University of Strathclyde, Moderator
Akshata Namjoshi, Lead, Fintech, Blockchain and Emerging Tech, KARM Legal Consultants, Speaker
Dr Raul Villamarin Rodrigues, Dean, Woxsen University, India, Speaker
Ratul Roshan, Associate, IKIGAI Law (formerly), Speaker
Pooja Terwad, Startup Lawyer, Pooja Terwad and Associates, Speaker

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Panel Discussion 4
ARTIFICIAL INTELLIGENCE AND ITS SYNCHRONOUS IMPLICATIONS TO ECOLOGICAL DATA SOLUTIONS

Pinaki Laskar, Founder, FishEyeBox, Moderator
Rodney D Ryder, Founder, Scriboard, Speaker
Prof Suman Kalani, Chief Research Expert, ISAIL, Speaker
Ratul Roshan, Associate, IKIGAI Law, Speaker

All the three Track Presentations:

Track 1

October 1, 2020
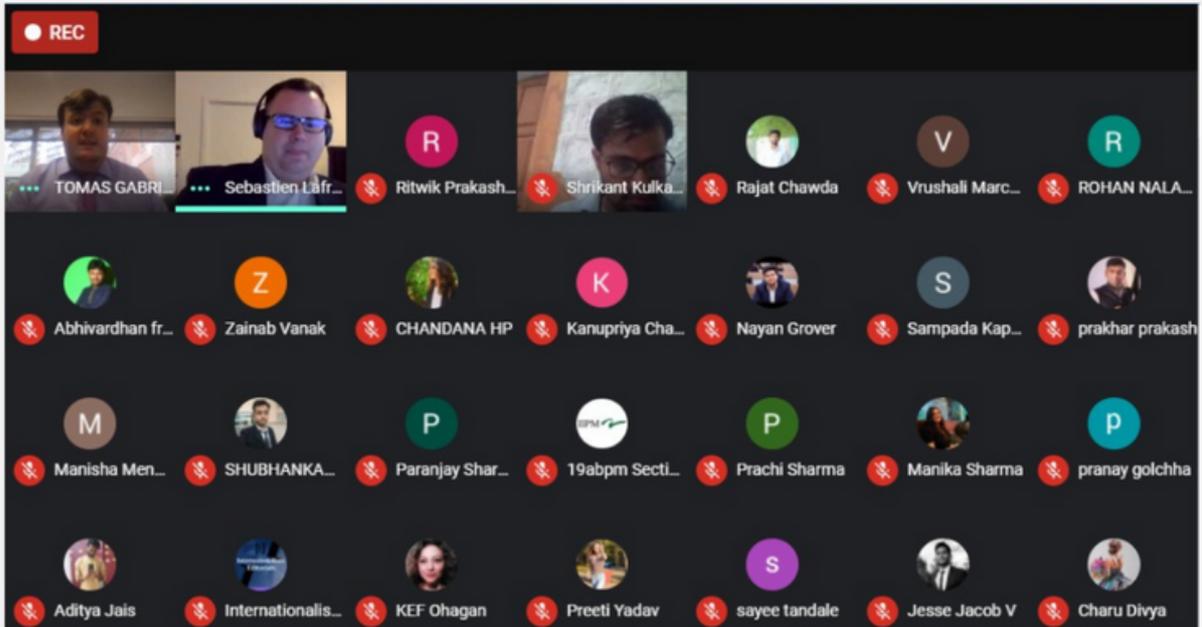
Track 2

October 2, 2020
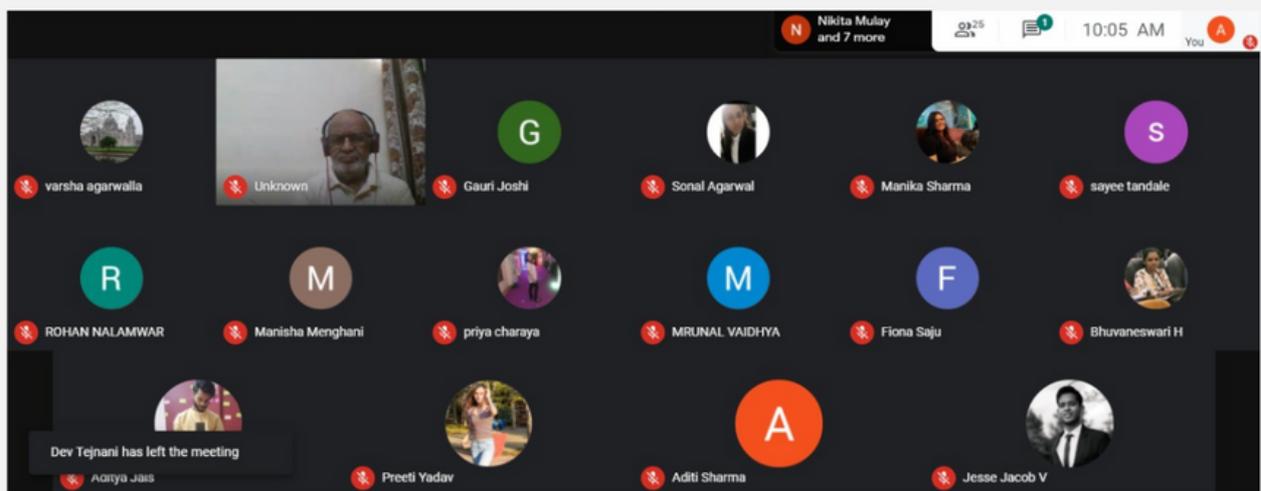
Track 3

October 3, 2020
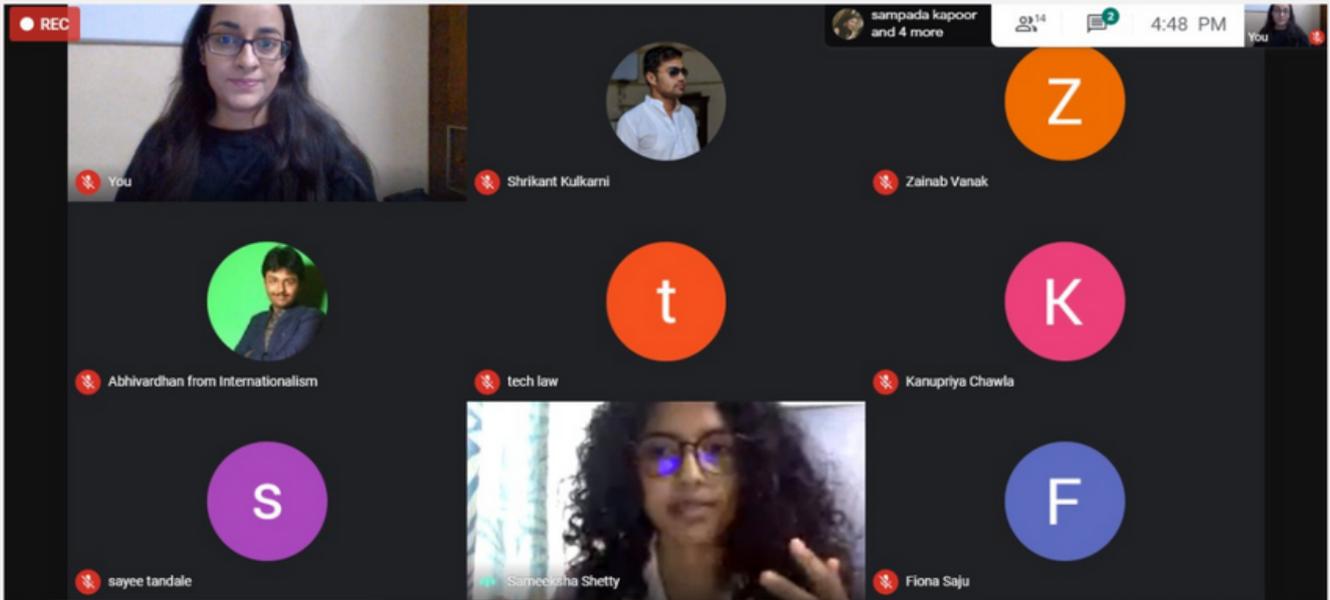
AI General Assembly, 1st Session, 2020

AI General Assembly
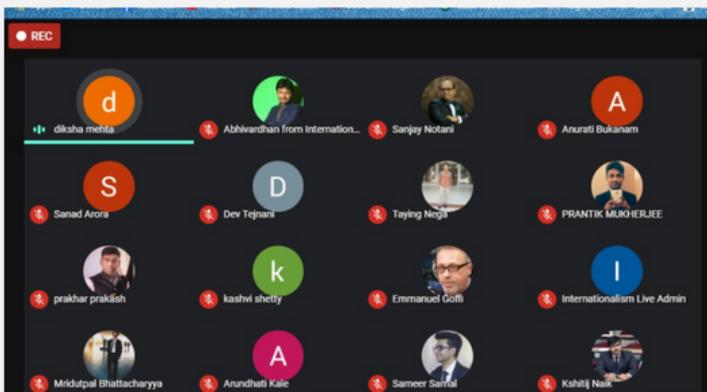
October 1, 2020

AI General Assembly

October 1, 2020
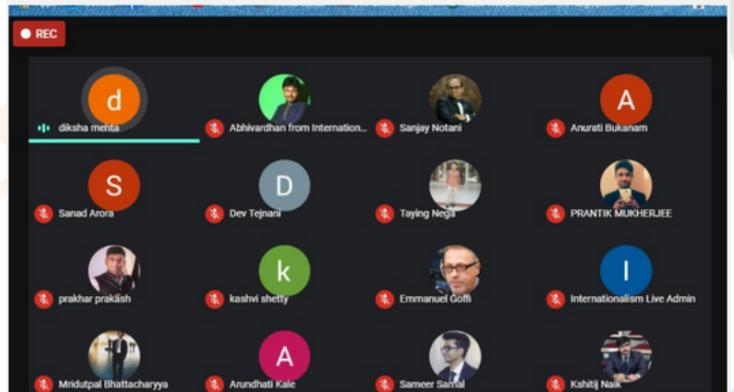
AI General Assembly

October 2, 2020
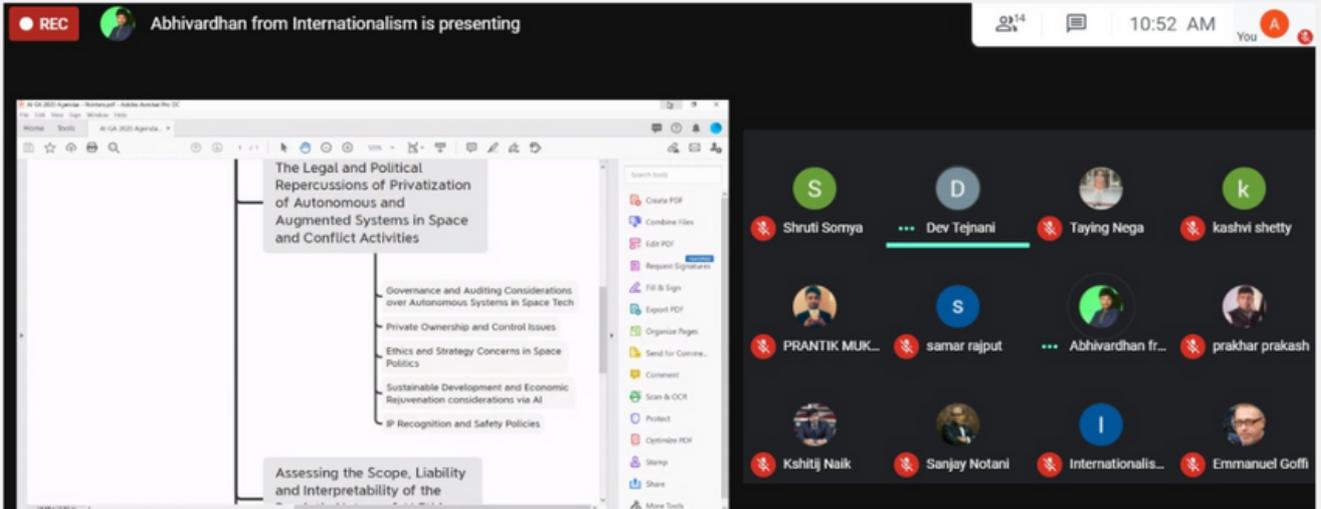
AI General Assembly

October 3, 2020
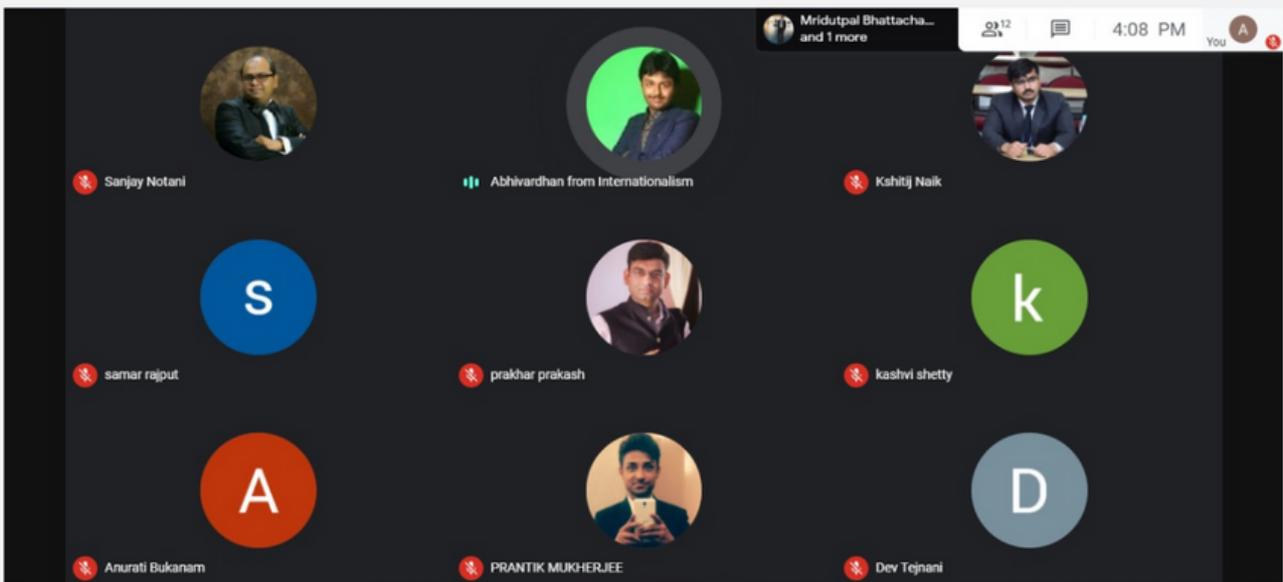
AI NOW WITH MRIDUTPAL BHATTACHARYYA

Mridutpal Bhattacharyya leads the course of our policy podcast, AI Now. We conducted 15 episodes since October 2020 and invited a range of experts, academics and authorities in AI Ethics, Law and Policy.

AI.Now

We interviewed many including (non-exhaustively):
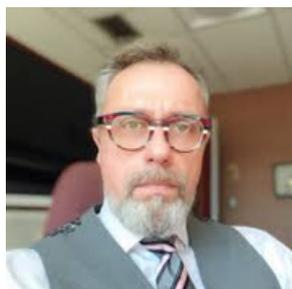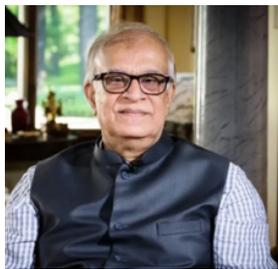
RELEASE OF THE 2020 HANDBOOK ON AI AND INTERNATIONAL LAW

Mr Benoit Sauveroche, First Counsellor, Delegation of the European Union to India and Bhutan, European External Action Service, released the Handbook on **March 5, 2021**. Mr Sanjay Notani, Economic Laws Practice & Mr Jared Jaskot, Jaskot Law graced the occasion through their presence.
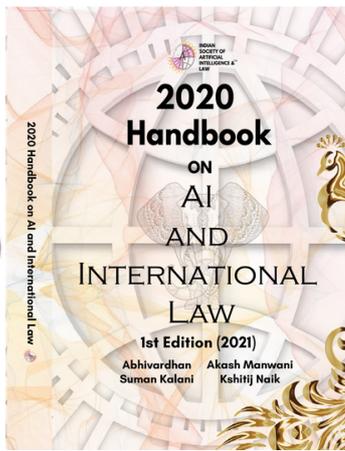
EDITORIAL ACHIEVEMENTS

THE INDIAN LEARNING

The Indian Learning [**e-ISSN: 2582-5631**], an independent AI Ethics, Law & Policy Magazine supported by the organization received its e-ISSN and is now indexed by HeinOnline. We published 2 issues of the magazine under the first Chief Managing Editor, Sarmad Ahmad and the incumbent Chief Managing Editor, Kshitij Naik. The soft copies are available at **isail.in/learning** & **issuu.com/indiansocietyai**.

Under the leadership of **Aditi Sharma**, one of the **Managing Editors**, TIL invites students of law to participate in editorial internships run by ISAIL to support the editorial cause of **The Indian Learning**.

Mridutpal Bhattacharyya, a Managing Editor, trains the interns to learn skills such as podcast interviews, question preparations, and other journalistic practices in the realm of **AI, Law & Policy**.

INDIAN SOCIETY OF ARTIFICIAL
INTELLIGENCE AND LAW

The Indian Learning

e-ISSN: 2582-5631
Volume 1, Issue 1 (2020)

Abhivardhan, Editor In Chief
Sarmad Ahmad, Chief Managing Editor

THE INDIAN LEARNING

INDIAN SOCIETY OF ARTIFICIAL
INTELLIGENCE AND LAW

The Indian Learning

e-ISSN: 2582-5631
Volume 1, Issue 2 (2021)
January 31, 2021

Abhivardhan, Editor In Chief
Kshitij Naik, Chief Managing Editor

Digital Edition
isail.in/learning

THE INDIAN LEARNING

INDIAN JOURNAL OF ARTIFICIAL INTELLIGENCE & LAW

Indian Journal of Artificial Intelligence & Law [**e-ISSN: 2582-6999**], an independent premier journal on AI and Law, which is supported by the organization, received its ISSN in 2020. Under the abled leadership of Abhishek Jain, the incumbent Chief Managing Editor, IJAIL has published its first 2 issues. The soft copies are available at **isail.in/journal** & **issuu.com/indiansocietyai**.

Volume: 1
Issue: 1
ISSN(O): 2582-6999
Available at:
isail.in/journal

IJAIL

Indian Journal of Artificial Intelligence and Law

Indian Journal of Artificial Intelligence and Law

Things to Read in this Issue:

Analytical Articles.
1. A confusing relationship between privacy and competition law — a way forward for EU competition law and algorithms pricing
Arletta Gorecka, University of Strathclyde, United Kingdom

2. Analysing the Effects of Artificial In-telligence Application in Commercial Space Law - An Indian Perspective
Manohar Samal, University of Mumbai

3. The transforming grid of digital fo-rensics to intelligent forensics – re-look into the applicability of artificial intelligence in current investigation techniques
Parvathy S Shaji, Department of Law, Kerala University, India

Review Articles.
4. AI and Criminal Liability
Sadaf Fahim, National Law University, Delhi, India
G S Bajpai, National Law University, Delhi, India

5. Liability of AI in International Armed Conflicts: A Critical Review
Ritvik Jha, Institute of Law, Nirma University India
Interviews.

6. Interview with Akshata Namjoshi on AI and Lawyering
Kshitij Naik, Associate Editor
Abhishrut Singh, Associate Editor
Mustafa Rajkotwala, Managing Editor

7. Interview with Sushanth Samudrala
Baldeep Singh Gill, Associate Editor

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Volume: 1
Issue: 2
ISSN(O): 2582-6999
Available at:
isail.in/journal
April 15, 2021

IJAIL

Indian Journal of Artificial Intelligence and Law

Indian Journal of Artificial Intelligence and Law

Specials.
Benoit Sauveroche's Remarks on the Release Event of the 2020 Handbook on AI & International Law
Abhivardhan, Editor-in-Chief
Mridutpal Bhattacharyya, Senior Associate Editor
Artificial Intelligence and the Future of Power: Excerpts from the Book Discussion with Shri Rajiv Malhotra
Abhivardhan, Editor-in-Chief
Mridutpal Bhattacharyya, Senior Associate Editor

Analytical Articles.
Tacit Collusion and Artificial Intelligence
Dr Abha Yadav, Indian Institute of Corporate Affairs & Tarun Donadi, Chandhiok & Mahajan, Advocates and Solicitors
Do Artificial Intelligence created Inventions qualify for Patent Protection?
Vedant Jain, University of Petroleum & Energy Studies, Dehradun
Patenting AI and Disruptive Technologies: Can the law of Patents keep up with the perpetual advances in Technological Innovation?
Prateek Jaiswal, West Bengal National University of Juridical Sciences, Kolkata

Interviews.
Interview with Thibault Schrepel on Computational Antitrust
Abhivardhan, Editor-in-Chief
Mridutpal Bhattacharyya, Senior Associate Editor
Interview with Prateek Sibal on AI technologies in Africa
Varun Nair, Junior Associate Editor
Interview with Aarthi S Anand on AI and Fintech
Mridutpal Bhattacharyya, Senior Associate Editor

Moot Testimonials.
Interview of the Winners of the 2nd Bennett National Moot Court Competition, 2020
Darshna Gupta, Junior Associate Editor
Interview of the Winners of the Su-rana & CUSAT School Of Legal Studies,
Dr AT Markose Memorial Technology Law Moot Court Competition, 2020
Darshna Gupta, Junior Associate Editor

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RESEARCH
ACHIEVEMENTS

INDIAN STRATEGY ON ARTIFICIAL INTELLIGENCE & LAW PROGRAMME

This research programme by ISAIL emphasizes research initiatives in the realms of generic public legal & policy fields based on AI Ethics. The key areas where the research team has been engaged since 2020 are:

- AI Education
- AI and Legal Personhood of AI
- Explainable, Omnipotent and Responsible AI
- AI Diplomacy
- International AI Governance
- AI and Ecology
- AI and Multilateralism
- AI and the Law of Crimes

Ateka Hasan is the current Research Coordinator for the Research Programme.

We published some significant reports and discussion papers reflecting upon the important contours of AI, Law and Policy. In due collaboration for the Indian Conference on Artificial Intelligence & Law, we endorsed the publication of some notable discussion papers for the Conference Proceedings, **AI & Glocalization in Law**.

AI and the Law of Crimes

In the discussion paper on AI and Criminal Law[1], the following was recommended:

- The creation of a tri-divisional project team of researchers for putting AI into rounds with the justice system of India. The three divisions must comprise of:
  a. Fillers- Engineers and lawyers who are assigned to design, create and improve the "Reservoir AI" and decide the use of specific precedents/news/amendments/statutes in the domain of AI Ethics respectively.
  b. Profilers- Criminologists, lawyers, psychologists and engineers dedicated to the creation of a "Profiling AI". Psychologists will constantly evaluate the profilers to reduce bias risks, criminologists and lawyers will research newer methods and developments in the field of social profiling, and engineers will be responsible for the system's creation and improvement.
  c. Jury- Lawyers, criminologists and engineers tasked with the creation and updating of the "Advisory AI". Lawyers will be concerned with the ethics part while criminologists and engineers shall continue to look for biases.

- Development and implementation of "**Reservoir AI**" in the judicial system- The object of this AI would be to provide the judge with relevant case laws/ laws/ provisions/ incidents/ observations from its extensive feed which should be constantly updated. Additional Recommendations are available in the next page. All the recommendations herein are subject to the capability and credibility of the ML infrastructure involved, which of course should be subject to vetting and efficacy analysis.

[1] Artificial Intelligence and Judicial Considerations: Legal and Administrative Underpinnings in India, Mridutpal Bhattacharyya (2020). Published in Artificial Intelligence & Policy in India, Volume 1 (2020).

1. **Development of "Profiling AI" for criminal profiling**- The object of this AI system could be to process criminal profiling based on its understanding of the principles of criminal profiling, facts surrounding the case, and evidence found. The AI can be equipped with some access to the geographical location of the accused and their kin for the detection of deviant or delinquent environment subject to training and the capabilities of its ML system.
2. **Development of "Advisory AI"**- The object of the AI system could be to formulate advisements for the judges by assessing the deductions made by "**Profiling AI**" and information provided by "**Reservoir AI**".
3. A **Review Board** should be formed to look into appeals made against the decisions of a judge if the decision was contrary to the advice formulated by the AI. The judge would be liable to submit a report as to their actions and if unsatisfactory, an investigation would be launched. The person appealing may be awarded confidentiality and protection immunities.
4. Companies can be contracted to provide AI support to law enforcement departments. This can include digital forensics, ballistic reports, gunshot detection reports, object and facial recognition, DNA analysis reports, etc. This will assist the AIs in the judiciary and also "**Profiling AI**" in compiling criminal profiles.

AI and Privacy

In a recent discussion paper prepared [2], the following recommendations were submitted to us:

1. The data principal shall be granted absolute ownership over all categories of his or her personal data.
2. Enforcing the data principle- data fiduciary relationship over data processors

[2] Machine learning and its Privacy Implications in India: Analysis of Logistical Imperative in Data Protection and Jurisprudence, Sameer Samal (2020). Published in Artificial Intelligence & Policy in India, Volume 1 (2020).

Further recommendations:
- **Mandatory anonymization of personal data**. Methods such as K anonymity, L- diversity, and T closeness are commonly used to mask or remove personally identifiable information and sensitive column data from ML training databases.
- **Mandatory usage of applicable machine learning subsets**. The draft personal data protection bill 2019 has categorised personal data and has proposed general regulatory measures for the specific category.
- **Regulation of data set purchases from the private sector**. The Government of India offers certain Open Access data sets containing data from various mainstreams to enable innovation and development in India.
- **Sectoral data localization obligations**. Considering the multitude of opportunities emerging from machine learning technology the correct rationale for a developing country like India would be to analyse data localization measures.
- Effects of machine learning and its subsets are well known to the stakeholders, However, the benefits of this technology do not overshadow the privacy implications it has.

This paper recommended certain legal provisions to ensure privacy protection while keeping regulatory at adversarial impacts on the industry at the minimum.

A discussion paper on facial recognition systems [3] was submitted to us with some recommendations:
- Providing the public with more insight about the functioning of the automated facial recognition technology would be a good step to lessen fear and controversy about the technology.

- The Government needs to establish adequate safeguards, redressal mechanisms, and create speedy dispute resolution forums to address any violations that may arise during the usage of the technology at a mass scale.

[3] Laws Regulating Facial Regulation in India, Paranjay Sharma (2020). Published in AI & Glocalization in Law, Volume 1 (2020).

- The open collection of sensitive information that the technology propagates needs a legal framework to ensure its successful implementation, and therefore, framing and enforcement of strict guidelines by Authorities for responsible use of the Facial recognition technology and full accountability to the citizens is necessary.
- The laws should aim to limit the use of facial recognition to conduct mass surveillance and real-time identification by either introducing the requirement of a warrant or identifying and laying down the 'under exigent circumstances' where such scanning is warranted.
- Facial recognition software suffers from ethnic and racial biases globally. Feeding better and diverse datasets onto the Facial Recognition software is needed to reduce these bias risks. This will help the software to avoid discriminating against people of colour or gender and will also improve the accuracy levels of the algorithm[4].
- There must exist legal safeguards against any misuse of sensitive information collected by facial recognition software. Cybersecurity of data is paramount as the database gathers humongous data without any consent.

AI and Internet Governance

In a thorough research paper on AI and internet governance[5], the following insights have been submitted:
- The author argues whether States should be taking an active role in the formation of some sort of international laws for the complex cyberspace or have the platform remain free and diffused as it is tough to mutate laws for it.

[4] However, it is important to estimate that identities such as Jati/Varna in India (or caste as signified as class in the Indian Constitution) and race, irrespective of a thorough, neutral and apolitical analysis of the salient features of both of them, should not be equated in terms of regulating hate activities or in terms of surveillance.

[5] Digital Diplomacy and the Role of Governance in the International "Cybersphere", Aditi Sharma (2020). Published in AI & Glocalization in Law, Volume 1 (2020).

- It also discusses the role and implementation of Artificial Intelligence in solving the cybersecurity issues that may arise while promoting new technologies and the role of big technology companies in helping society navigate through them safely.
- The author points out how there has been an absence of uniform legislation in the international sphere when it comes to the digital world. They say that the main challenge is tackling the issue of protecting digital sovereignty while controlling the cybersphere. It also discusses the reasons why it is difficult to formulate a uniform law on an international level and what is the world's current progress on it.
- An important thing the paper educates the reader on is the mischiefs that take place in cyberspace that is vulnerable to attacks on an individual level, company level and national level. Hackers have the capability to not only procure our personal data and infringe on one's privacy but also hack into confidential company documents and even threaten national security by hacking the power plants. This is mainly caused by a lack of laws which makes it difficult to adjudicate those behind these attacks.
- When it comes to how AI could help solve the problem of adequate regulation and security, the author gives us a picture of all the pros and cons of implementing it. They recognize that it is a new and trending area for the research of developers. Much information of individuals and nations is compromised when it comes to AI and there have been breaches in the system which has created fear in the minds of people and made them develop disbelief of the beneficial technologies available to them. The author notes that AI is indeed essential in detecting potential threats, malware, and malicious activities and may even help reduce or prevent them.
- A significant feature of this paper was its take on the role of diplomacy which emerges with the changing trends in cyberspace and the idea of sovereignty which addresses the requirement for implementing laws in cyberspace. It also enlightens its leaders about the influence that big companies such as Google have in global policies related to regulating the technological advances that are progressively taking place faster than ever.

- The author gives us the example of Estonia calling it the epitome of digital diplomacy as 99% of its public services are online as they find digitization cheap and easy. An important point that the author drives home is the fact that although implementation of AI has some risks involved, we must be ready to take them as they may be more beneficial than harmful, especially in the long term as restoration of the digital structure is always possible. They also highlight the need for digital diplomacy in boosting a nation's economy making the reader root for AI systems while also being aware of their shortcomings.

- Another eye-opening aspect of the project is when the author educates the readers about Indian Diplomacy and its relations with cyberspace talking about how it is progressively working on implementing AI in its system. However, the lack of digital infrastructure presents itself as a prominent challenge that the nation must face while tackling various cyber-attacks. There is an important emphasis on how taking risks and moving forward with the implantation of AI will help overpower the negatives as there is more benefit in making the digital space a part of the system than going on without it.

- The author suggests that we tackle the problems that are being faced when it comes to cyberspace rather than debating on its regulation repeatedly with no concrete outcomes. They say that digital diplomacy is crucial in the current times and one must not shy away from it to progress further as individuals and as nations.

International Algorithmic Law

In a discussion paper on international algorithmic law[6], the following estimations and insights were submitted:

- A new field within the domain of international technology law, albeit similar to corollaries in a proposition on fields of AI and Law to a limited extent, is proposed, namely international algorithmic law (IAL). This proposition was made by Abhivardhan.

[6] International Algorithmic Law : Emergence & the Indications of Jus Cogens Framework & Politics, Abhivardhan (2021). Published in Artificial Intelligence & Policy in India, Volume 2 (2021).

- The basis of IAL is central to these important themes: a) development of algorithmic law and politics; b) the field of IAL will attract major strategic & converging yet narrow avenues of engagement and cooperation; c) IAL will be guided by ideology and policy dichotomy to some extent;
- The realm of AI comes central to the utilitarian resource of "algorithm".
- Although multilateralism is losing its sui generis relevance, partnerships and plurilateral engagements complement it.
- Algorithms are the fundamental and substantive units of AI. It is necessary to categorize AI systems, analytics-based infra and others.
- The essentials of IAL are enumerated as follows:
1. Political and economic transformation should be the basis of IAL
2. The existing jurisprudence & legal literature in terms of international law & technology can be considered as the legal basis of IAL
3. In terms of metaphysical and meta digital aspects of international law, IAL can be considered as an initial resort.
4. Algorithms help in defining the reasonability and productivity of IAL and the hard and soft powers both influence IAL.

Abhivardhan proposes the characteristics of customary international algorithmic law:

1. Article 36 of the ICJ Statute's approach towards sources of international law can be much of an interlocutory nature in determining sources;
2. The development of the peremptory norms under international law has been central to the schematization of the idea of internationalization and transfusion into the notion of the international community.
3. Tools that are present within the scope of jus cogens and the objectors would reasonably transform. However, one of the most defining factors in the questionable and unquestionable aspects of these will be central to the fluidity and multidimensionality of cyberspace, and many more which requires more research.

AI and Economics

In a Research Panel conducted for the Indian Conference on Artificial Intelligence and Law, 2020, certain imperative suggestions were submitted[7]:

- The Government of India should allow the inventor of an algorithm to decide whether he wants to publicise it or not, rather than making it mandatory to do so, especially when it is made with a public and private joint venture. This will give the inventor the power and freedom to earn benefit from his own creation. The government can issue the non-assertion pledge in order to maintain the accessibility of the algorithms.

- The Indian Government is trying to bring in as much AI as possible in the field of agriculture by making a 1 lakh crore fund for agriculture infrastructure and promoting various organisations to promote AgriTech as well.

- There is a conflict between the treatment of the sector-specific regulation on the data control regulations and the newly proposed bill Personal Data Protection Bill (PDPB). As RBI strictly forbids the transfer of financial data outside the nation arises the problem of treatment of financial data and its categorisation under PDPB i.e. whether it will come under Personal Sensitive Data or not.

- Fintech is getting advanced day by day and the laws regulating it are still trying to catch up with it, so any new technology is treated in a controlled environment i.e. regulatory sandbox and it is really troublesome in the field of 'digital investment management' specifically in Robo-advice.

- Open Bank is introduced with an objective to give the control back to the user. But whether it is fine to trust AI with financial decisions as Fintech is used in the 1st level authentications and this will also minimise the interaction between the user and banker.

- The Middle East has allowed the use of Robo-advice in their financial market. The treat is as any other Fintech as they are concern more with the end result rather than the process of getting it.

[7] Algorithmic Trading & Monetization: Policy Constraints for Disruptive Technologies – Panel 3, October 3, 2020, the Indian Conference on Artificial Intelligence & Law, 2020 (2020). Published in AI & Glocalization in Law, Volume 1 (2020).

- AI is also making its way into the education sector, for example, facial recognition and biometrics are being used for attendance and also serves as an invigilator in examinations. But the intervention of a nation's government and its regulation also plays a major role.
- The most intriguing interventions of Augmented Reality (AR) and Virtual Reality (VR) are when they are combined with 5G, digital avatar and psychology and treatment of phobias.
- The start-ups are disinterested in the core AI and ML as developing an AI is a long term project which requires a deep understanding of AI accompanied by a huge amount of capital, and most of the Indian start-ups are not capable of that.
- Problems with regulating cryptocurrencies are neither new nor just confined to India. But in recent months the dealings in cryptocurrencies has increased in India which urges a healthy working environment and some set of regulations in this field.

AI and Corporate Governance

In a discussion paper submitted to us[8], the following insights and recommendations were obtained:
- Considering a positive trend in 2018 and 2019 worldwide, M&A expected a similar trend of flourishing deal making in 2020 with a major portion of the population expecting rise in deal size and an increase in the number of deals. Divestment being a central element of M&A deals, would be facilitated by organisations seeking to capitalise on high valuation and by distress deals.
- In a case where the economy slows down, M&A are less likely to suffer ignorance, but will be faced with companies which will become more deliberate about the deals they will engage in. This might naturally lead to more divestitures.
- The global outbreak of the coronavirus poses uncertain challenges and has retarded the economic growth of companies, it is likely to be followed by a series of distress deals.
- There hence comes forward the need to incorporate Artificial Intelligence in M&A deals with more reliance being placed on virtually stored data and adopting virtual working.

[8] Algorithmic Trading & Monetization: Policy Constraints for Disruptive Technologies, Stuti Modi (2020). Published in Artificial Intelligence & Policy in India, Volume 1 (2020).

- A business valuation will have to be done with extra caution and a more thorough economic assessment in the form of liquidity and business status, along with the comparative analysis of success or failures of similar M&A companies is required.
- A post-merger integration will allow companies to identify fruitful opportunities, mitigate possible risks and ensure a better post-deal execution.
- The widespread potential of Artificial Intelligence demands the addressing of various ethical and legal issues. The addition of the Right to Privacy as a constitutionally warranted right created space for Data Protection Laws in India which subsequently led to the Srikrishna Committee to prepare the Data Protection Bill, 2018.
- When undertaking an M&A deal, a Non-disclosure agreement (NDA) stands imperative since privacy concerns revolve around the consent and lawful use of data.
- It also becomes the responsibility of the government that constitutional due process standards be followed by software developers of private sectors.
- However, there stand a number of questions on the accountability of AI and the algorithmic black box where input is processed, and usable outputs generated.
- The U.S. court put forward the four elements to ensure transparency: the inputs put in, how the algorithm weighs these inputs, whether certain factors (like race, religion) are being used as variables, and the underlying assumption held by the computer scientists who had designed the algorithms.
- The use of diverse algorithms can lead to the algorithm bearing prejudice to the defendant; hence it is imperative to establish guidelines to ensure consistency in decision making.
- Further, the Personal Data Protection bill, 2019 entails no provision for Right to Explanation involving any information about the logic underlying the automated decision. The lack of transparency will directly impact the liberty and life of individuals.
- Since the decision is being made by a black box filled with algorithms, the scope to question the decision stands unclear; so, does the obligation of the private sector developers.

- The complex relationship of the public-private sector, along with most data being held by the private sector, with the absence of clear guidelines and legislations stands as a grave concern.
- To prevent bias and any discrimination, the Indian constitution prohibits direct and indirect discrimination. Inaccurate training data, algorithmic processing, and interpretation of outputs are three stages where discrimination can occur.
- A set of best practices or contextual rules ensuring fairness in the real-world application of AI-driven solutions is essentially required. From a legal perspective, it matters to make a good faith effort to conduct due diligence.
- Due to the issues, India is facing at hand, setting up a committee that will be responsible for assessing the development and use of AI-driven solutions will be a helpful step in an appropriate direction.
- To ensure and maintain transparency, the power to make a determination of proportionality based on algorithms can be placed in the hands of the court. The second method can be dubbed by the acronym 'ALGO-CARE'- Advisory, Lawful, Granularity, Ownership, Challengeable, Accuracy, Responsible, and Explainable.
- When deploying AI in M&A deals, it is essential that the tests of proximity, proportionality and non-arbitrariness are adhered to. The training data should be made more representative of the heterogeneous realities of India.
- The AI-driven solutions must be more regulated, require more oversight and have stricter standards. Further, it is necessary to have human discretion evaluating software actions and final decisions and selective delegations when necessary. A more cohesive framework for regulating the public-private partnership will add more clarity to the process.
- Despite governmental pursuits, there exist issues that demand immediate redressal. In addition, the technology needs to develop further for it to be used on vast platforms. The gaps in law demand to be filled in a way that it adheres to the laws of the constitution. Since the idea of one-size-fits all does not apply to the case of AI, human discretion and supervision stand as a necessity.

AI and Arbitration

In a discussion paper on Arbitration and AI Ethics [9], the following insights and recommendations were submitted:

1. Predictive analysis under AI tech can only be done through previous performances. Thereby, an arbitration algorithm would require data from live newscasts of Arbitration proceedings. These models assist for both purposes public as well as private.

2. AI in International Arbitration can be utilized in research, drafting, proof-reading, case management, the appointment of an arbitral judge, translations of documents, foreign translations, arrangements of transcripts, cost estimations etcetera.

3. The models that are available under Artificial Intelligence (AI) for document classification are Technology-Assisted Review (TAR) and Predictive Coding (PC). Designed For cross border dispute resolution, PC evaluates risks and measures and interprets the data as a courtesy of the organization.

4. This procedure sets boundaries and recognises reports that will frame as an illustration of reports to be inspected. The system will then foresee the samples and classify them as 'relevant' or 'non-relevant or for document requests as 'responsive' or 'non-responsive.

5. The documents when identified, by the TAR algorithms may be reviewed by any lawyer. It is to be noted that the procedure can be examined by the senior lawyer at any point of time from the starting.

6. Thereafter, the documents' relevancy may be derived. The AI algorithm manufactures consistent document with lower risks, thereby aiding in quick document review.

7. Effects of Predictive Analysis:

- Early Data Assessment (EDA) provides early fragments of knowledge of the subject matter. It allows the party to search, compose and test electronically stored information (ESI) in advance. This supports the lawyer to promote participation and balance in research.

[9] Manoeuvring AI in International Arbitration, Ankita Bhailot (2020). Published in AI & Glocalization in Law, Volume 1 (2020).

- Predictive Analysis supports the document retention policies. The algorithm identifies the relevant documents which are further trained for recognition of specific compliances.
- AI through Predictive Analysis provides for drafting suggestions, submissions, review agreements and discover blind spots which cannot be uncovered with a human eye. Both the lawyer and the client can benefit from the algorithm in order to achieve for a more eminent solution.
- The possibility of an AI-enabled arbitrator cannot be perceived as far beyond thought. Machine Arbitrators can be the new adjudicators affording a much-refined outcome.
- Some of the discoveries have endorsed the argument that computer programs are better than humans in foreseeing the result of legal decision making. Although, most lawyers believe that decision making is intellectual which is inclusive of understanding of the parties' nature and rational human reasoning.

If there be a robotized arbitrator, the decision making of the case will fall into the hands of the programmer and this may attract disagreement as it may result in non-acceptance of the award due to the inherent flaw of not being able to choose the arbitrator of their choice. Additionally, the prominent question of understanding of human interactions and fair equity may be raised in light of a machine arbitrator. In order to address these problems, a larger sample for a more predictive worth must be taken.

For cases, which are not published, the AI systems can again turn out to be a huge issue. AI decisions generally identify information input and consider the repetitive fact pattern. The algorithm may face issues when there are non-repetitive facts or distinct inputs which have not been formally recognized.

It is being commonly felt that the AI systems oppose the traditional legal manner of working. Different AI forecasts present huge changes in the world inclusive of the legal space. The legal system may face a notorious shift when a robotized judge will be at place with advanced movement of algorithms.

[10] AI & Cybersecurity in India: A Critical Review, Ankita Malik (2020). Published in AI & Glocalization in Law, Volume 1 (2020).

- There are majorly two models, rule-based and specified systems, for example- neural systems. Rule-based already have input with them while neural systems have no pre-exemplified rules in the frame. The AI model figures out probabilities for itself and further such prediction is derived as binary classification. Having clarity in questions and patterns furthers a better and efficient AI model.
- The proposal of a new court environment needs to be thought of because of the rapid changes in technology. It has been seen that AI has had huge successes in different fields and these successes advocate that predictive analysis, where there is uncertainty can still be achieved. For example, DeepMind's reinforcement programme AlphaGo has achieved huge accomplishments in deriving its mastery from its own experiences and environment. Though the law is not a game, it certainly implies that the concept of AI in arbitration is achievable and may yield respectable results.
- Although, there hasn't been much change in the way law works from the 19th century but the law itself has been ever-changing. Justice, therefore, needs to meet and greet new ways in light of more informed and clear decisions going ahead. AI's role in the furtherance of a resourceful legal system is important and the fact that the machine brain can overpower human capacity cannot be ignored.

AI and Cybersecurity
Following are the recommendations from a discussion paper[10]:
- India's stance can be understood by looking at its recommendation to the United Nations, a Committee for Internet Related Policies was recommended. Cybersecurity was made a top priority by India and it also holds the opinion that Tunis Agenda principles should be followed. These, however, do not fulfil the need of having a comprehensive strategy for cyberspace along with special regard to the Asian region. This is so because of the lack of cooperation and no concrete steps outside of bilateral level dialogues being taken.

- A policy cannot be drawn from thin air, instead pre-existing policies can be used to provide a solid foundation to battle cyberspace threats. Various laws in India which deal with technology stem from pre-existing legislation. This strategy can be a successful one as long as it is limited to the preliminary development stages. collaboration of the government with foreign law enforcement agencies is crucial to ensure a constant flow of information. Interaction with other nation-states faces similar issues is key. Hence, foundation building and collaboration is essential to formulate successful policies.

- The exploitation of pre-existing vulnerabilities can be thwarted by the systematic categorisation for efficient operation. Best practices in terms of communication and response mechanisms include risk communication and risk analysis.

- Disclosure of incidents that a state dealt with can help in forming a database of practically applied best practices. Engagement of states on an international level where they voluntary share such information as well as review pre-existing strategies can ensure optimal implementation of policies and even formulation of solid ones.

- Adaptive algorithms can significantly increase the costs of cyber-attacks by either; enhanced defences that can be customized depending on the capacity of the attacker or by trying to achieve the model of deterrence by punishment through increasing the intensity of retaliation. Quantum computing can avoid the collection of extensive data while enabling advanced predictive analytics.

In 2020-21, ISAIL published certain important reports on issues of importance in AI Governance.

Some of them are notably mentioned as below:

Recommendations Report on Trends Involving AI Ethics Boards and their Comparative Developments
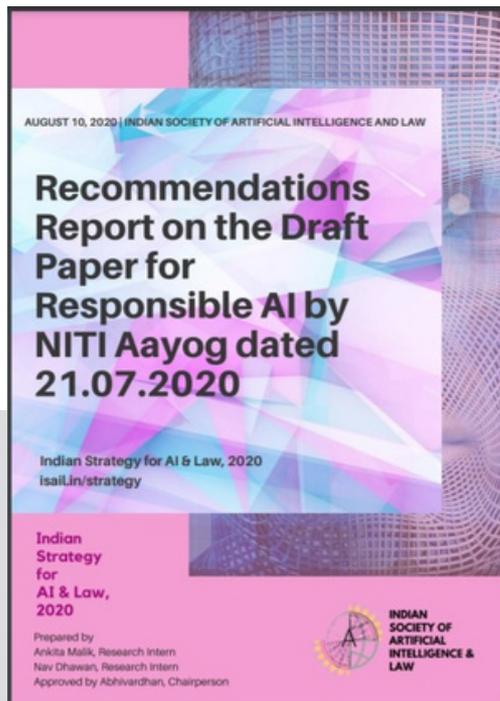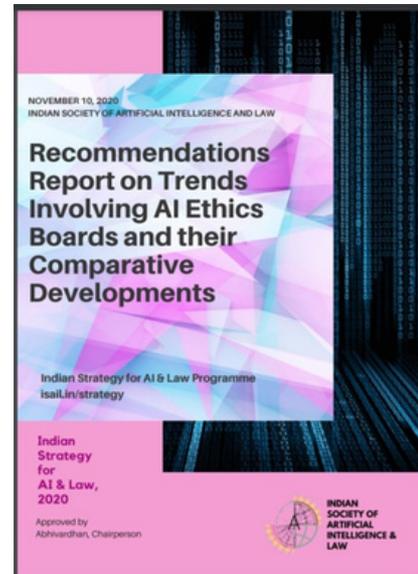
Indian Strategy on AI & Law, 2020 - Responsible AI Recommendations Report

Recommendations Report on AI Education with respect to the National Education Policy, 2020 released by the Government of India
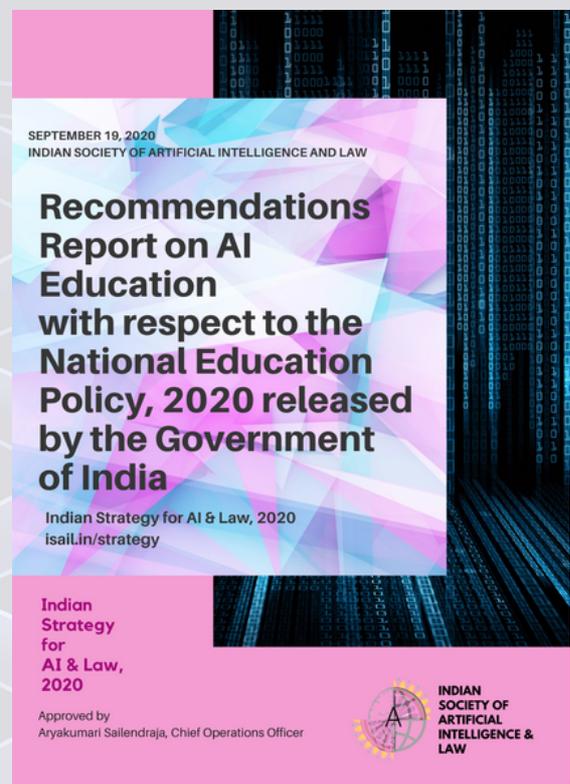
The 2020 Handbook on AI and International Law, a research handbook, was developed by the contributors and researchers of the Indian Strategy on AI and Law Programme.

Features of this handbook:

INDIAN
SOCIETY OF
ARTIFICIAL
INTELLIGENCE &
LAW

2020
Handbook
ON
AI
AND
INTERNATIONAL
LAW

1st Edition (2021)

Abhivardhan   Akash Manwani
Suman Kalani   Kshitij Naik
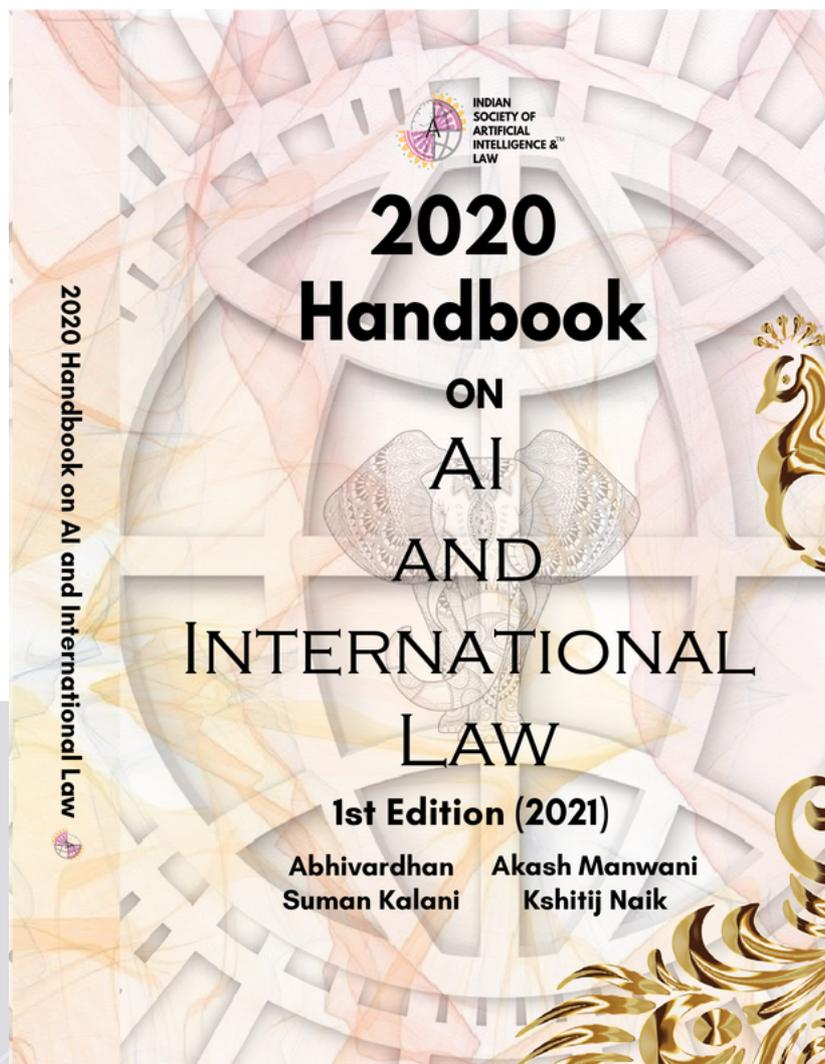
- The Foreword of the Handbook is authored by Eugenio V Garcia, PhD, Head of Diplomatic Mission, Guinea-Cunarky, for the Government of Brazil.
- Language is lucid and simple to explain the role and relevance of AI Ethics as a field of study and research.
- Case studies and examples have been given thoroughly in the chapters.
- This book covers 21 fields of public international law.
- AI Ethics has been conceptually treated as a concept of soft law in this book to further elaborate upon how priorities of liability and governance frameworks are achieved.

THE CIVILIZED AI PROGRAMME

This research programme by ISAIL emphasizes into cultural & civilization science & its multidisciplinary impacts when juristic/legal entities such as AI influence the aesthetic and pragmatic infrastructure of cultures, civilizations and societies. This research problem emphasizes upon certain ancillary areas of AI and International Affairs as well. The key areas where the research team has been engaged since 2020 are:

- Indic Approaches to AI Ethics
- AI and Information Warfare
- African, Russian, Central Asian, Latin American, MENA & Indo-Pacific Approaches to AI Ethics
- Eurocentrism and International AI Governance
- Civilizational Sciences and Technology Evolution (AI)
- AI and Creativity

Dev Tejnani is the current Research Coordinator for the Research Programme.

The programme is still under development. However, an important paper on the Indic approaches to AI Ethics has been authored by Abhivardhan recently, outlining the vision of the Research Programme.

Background Paper

Developing an Indic Approach to Artificial Intelligence Ethics: Critical Reflection on India's Vulnerabilities and Strategic Vision as a Soft Power

Abhivardhan

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Public Document

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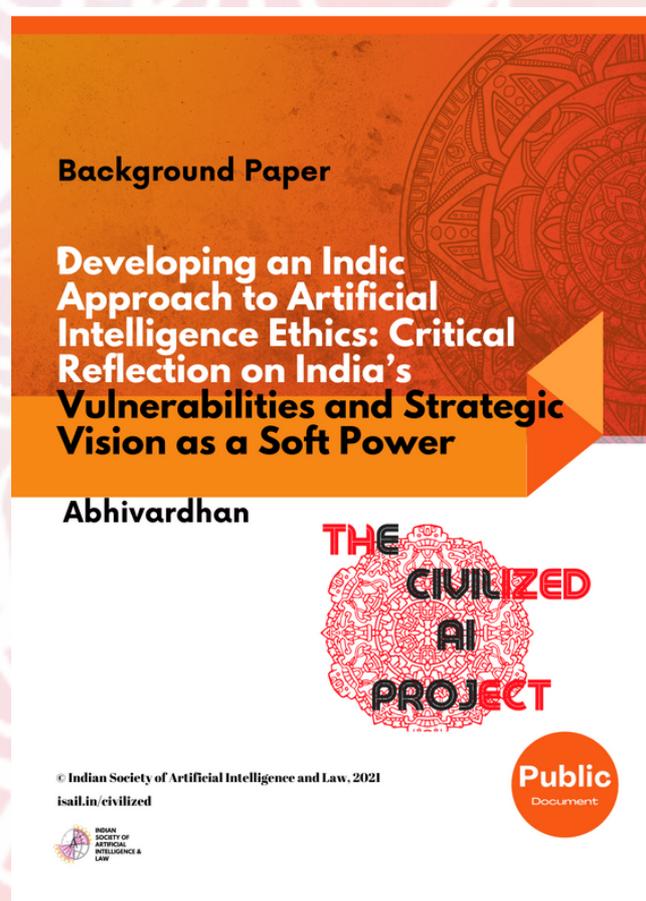
INDOCON 2021: AGENDA FOR 2021

INDIAN SOCIETY OF ARTIFICIAL INTELLIGENCE & LAW

AI-L

Indian Conference on Artificial Intelligence & Law

THE CONFERENCE AGENDA FOR 2021

This year, the Secretariat has decided to undertake a new policy agenda for the Indian Conference on Artificial Intelligence & Law, 2021. In the first virtual edition of IndoCon, the major focus areas decided for our panels and tracks were central to the theme of transition from the first two decades of 2000-2019 to a new era, amidst the COVID19 pandemic. Unlike what popular opinion might have thought, this pandemic has seemingly accelerated human development (possibly evolution). The vulnerability to deal with pandemics and such biological calamities teaches us as humankind to act humble, think reasonably and bridge gaps between individual rights and group rights. Artificial Intelligence, though, does not determine distinctively between the domains of individual and collective rights respectively, which seems quite problematic, considering that AI induces social control with much pace through cyberspace and ever-increasing reliance on cyber or digital activities. Thus, we have decided on a universalized and India-centric Global theme for the Conference, which is central to the notion of Cyclical AI.

By Cyclical AI, we mean that phases of growth of human society as a whole, and its civilizations need not be linear in terms of analysing risks that might emerge due to the proliferation of AI products and services. We need an economic approach, which adapts and conditions how random uncertainties become certain as naturally as possible.

As India's Principal Economic Advisor to the Ministry of Finance, Shri **Sanjeev Sanyal** had **stated** once:
"Economics is about managing a series of random shocks and their unpredictable consequences. Economists who believe in "equilibriums" also believe in the tooth fairy."

Incidents such as the Suez Canal block, the COVID19 pandemic and its disastrous waves and even the cases of mutation signal towards the same issue.

Imagine how can humans through AI, which is assumed to be an 'extension' of humankind like historical chariots in Egypt and the Roman Empire, the printing press in the 14th and 15th Century in Europe, Penicillin and Insulin developments decades and centuries after the Industrial Revolution, achieve better goals. Even in the line of understanding Behavioural Economics, it seems probable that the randomness of societal and physical changes, whether through viruses, nature itself or any other strategic un-expectancy from human reality - resilience is the key to achieve Cyclic AI, which surpasses identitarian and biases-centric approach to AI Governance. Therefore, the Global theme for IndoCon 2021 is:

THE CYCLICITY OF AI AND HUMAN RESILIENCE

Human-centric AI should not be limited to the technocratization of risk assessment. Considering that, here are the sub-themes of IndoCon 2021 within the key theme:

- Deciphering Explainable Artificial Intelligence for the Indo-Pacific
- Role of AI as Utilities and Services in the Development of Civilizations
- Role of AI Hype on the Medical-Pharma Sectors in the World of Information Warfare
- Reconciling Monotonocity in International AI Governance
- The Demand to Disrupt Economies through Disruptive AI
- India and Africa's Visions for Beneficial AI
- Plurilateralism and the Need to Democratize Governing Objectives for Artificial General Intelligence
- The Need to Decipher Cooperation Between East Coast Code and the West Coast Code through Blockchain
- AI and Blockchain: Need for Reforms in Indian Tax Regimes
- Indian Civilization and the Aestheticization of Soft AI: A Soft Law Approach

Under the incumbent Presidency of Abhivardhan, the Organizing Team of IndoCon 2021 will be designated to the Secretariat. Key position are granted as follows:

Akash Manwani, First Vice President
Aditi Sharma, Second Vice President
Mridutpal Bhattacharyya, Director, Operations
Kshitij Naik, Director, Human Resources

FUTURE AGENDA: INDIA-CENTRIC AI ETHICS

THE FUTURE AGENDA

We launched our new departmental initiatives within ISAIL for 2021.

Here is a brief description on each of them.

Indian Overview on Artificial Intelligence & Law

Director: Akash Manwani

Objective: Developing Indices and Empirical Insights on AI Ethics and its Types

Indian Library on Artificial Intelligence & Law

Director: Mridutpal Bhattacharyya

Objective: Establishing an Online Library of Case Studies on various AI+International Legal Research Areas

Indian Moot on Artificial Intelligence & Law

Convenor: Abhivardhan

Objective: A Moot Court Competition specialized on AI and International Legal Issues
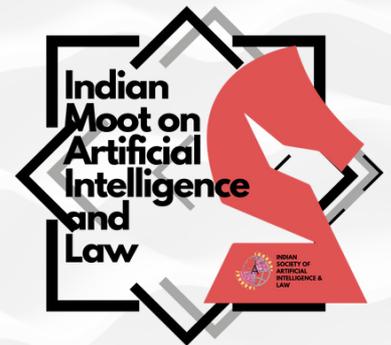
Samvedanam

Co-Director: Aditi Sharma

Objective: Developing Skill Training and Research Thinking Programmes in the realm of AI Education

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