

Fourth IPIRA CONFERENCE, 9—12 February 2022 Online

FRIDAY, 11 FEBRUARY 2022 (DAY 3)

PARALLEL SESSIONS (5)

2.30 pm – 5.00 pm (SG/KL) / 12.00 pm – 2.30 pm (India) / 7.30 am – 10.00 am (Geneva)

PARALLEL SESSION 5.D

INTELLECTUAL PROPERTY AND TECHNOLOGY (panel organized with the Jean Monnet Centre of Excellence “Consumers and SMEs in the Digital Single Market,” University of Bologna, co-funded by the Erasmus+ Programme of the European Union)

Chair Assistant: Niharika Salar

CHAIR:

Federico Ferretti, Department of Sociology and Economic Law, University of Bologna

PRESENTERS:

Tyrone Berger, Deakin Law School, Deakin University

You Look Familiar? Impact of 3D Printing on Industrial Designs

P.S. Athira, National University of Advanced Legal Studies

Blockchains For Protection of Intellectual Property Rights: An Exploration

Lorenzo Ferruzzi, University of Bologna

Ico: An Alternative Source of Financing SMEs

Manjula Mallepalli, School of Law, Mahindra University

Impact of Digital Technologies on World Trade and Regulatory Framework

Owais Shaikh, Shaheed Zulfiqar Ali Bhutto University of Law

IP in the Metaverse

Kiran Sharma, School of Law, Galgotias University

3D Printing and IP Laws: Advantages and Challenges

Email addresses (in order as in the panel)

f.ferretti@unibo.it

t.berger@deakin.edu.au

athiraps@nuals.ac.in

lorenzo.ferruzzi4@unibo.it

manjula.mallepalli@mahindrauniversity.edu.in

owaishs@yahoo.com

kiran.sharma@galgotiasuniversity.edu.in

Chair assistant: niharika.salar@gmail.com

BIOS

CHAIR



Federico FERRETTI, Department of Sociology and Economic Law, University of Bologna

Prof. Ferretti Federico, Associate Professor in Economic and Financial Markets Law, Department of Sociology and Economic Law, University of Bologna (Italy). Jean Monnet Chair of Digital Market Law (2022 -). Director of the Jean Monnet Centre of Excellence “Consumers and SMEs in the Digital Single Market” (‘Digi-ConSME’) funded by the European Union (2019-2023). Qualified Lawyer of the High Courts of Italy. Formerly, Senior Lecturer in Law at Brunel University London (UK). Member of the Consumer Advisory Group (CPAG) of the European Commission. Member of the Financial Services User Group (FSUG) of the European Commission. He advises in the preparation of legislation or policy initiatives which affect consumers and the users of financial services, providing insight, opinion and advice concerning the practical implementation of consumer policies. As a practitioner, he served as the lawyer of a multinational company providing credit data and scoring services internationally. He also advised regularly national and European consumer interest groups.

PRESENTERS



Tyrone BERGER, Deakin Law School, Deakin University

Dr Tyrone Berger is a lecturer at Deakin Law School, Deakin University. Tyrone holds a PhD from Monash Law School, which won the 2019 Mollie Holman medal. He also has a JD from the University of Technology of Sydney (UTS) and degrees in Arts and Commerce from the University of Sydney. Tyrone’s previous academic positions include roles at the University of Melbourne, RMIT University and Monash University. He has published widely in the areas of IP and technology law and presented his research at local and international legal conferences. Before arriving at Deakin University, Tyrone worked as a policy officer at IP Australia, the national IP office, in the Domestic Policy & Legislation section. He advised on

current and emerging IP matters, developed changes to legislation, and represented IP Australia locally and abroad. Prior to this, Tyrone practised as a Lawyer and Trade Marks Attorney for a national firm.



P.S. ATHIRA, National University of Advanced Legal Studies, Kerala

Teaching Intellectual Property Rights at the UG and PG levels since 2012- designed courses such as 'Law, Technology and Development', 'Intellectual Property and Technology: Contemporary Challenges', 'TRIPS and IP Regime in India' etc. At UG level, have tried several pedagogical methods-mootcourts in IP issues, field trips to acclimatize students with the social, economic and cultural significance of geographical indications, organized exhibitions and interactions with leading practitioners in the field, organized practical training programmes in collaboration with the IPO, DIPP, FICCI, CII etc. Completed Ph.D. on the subject of patentability and its impact on access to new medical technologies. Have been a part of many international and national platforms on intellectual property rights and health care. Have attended numerous workshops and programmes to increase scholarship in intellectual property rights. Spearheaded establishment of the Centre for Intellectual Property Rights at the National University of Advanced Legal Studies, Kerala, in 2015. Edited and published the NUALS Intellectual Property Law Review (ISSN 2582-4244, 2019-) as a double blind peer reviewed open access online journal (<http://ciprnuals.in/tiplr/>) . Have organized many workshops and published many books (edited) on intellectual property rights.



Lorenzo FERRUZZI, Department of Sociology and Economic Law, University of Bologna

Lorenzo Ferruzzi (admitted to the Italian Bar in 2016) graduated with honors from *the Alma Mater Studiorum* - University of Bologna after having received three awards as particularly deserving student in the last three academic years. Subsequently, he obtained a Master in Business and Company Law with honours from LUISS Guido Carli University in November 2018, and a Master's Degree in Economics and Law at *Alma Mater Studiorum* – University of Bologna in December 2019. Lorenzo is a second year Ph.D. Student in European Law – European Markets Law at *Alma Mater Studiorum* – University of Bologna, within the Jean Monnet Centre of Excellence project “*Consumers and SMEs in the Digital Single Market*

(Digi-ConSME)”. He is an author of publications in both national and international journals and has participated as a speaker at conferences.



Manjula MALLEPALLI, School of Law, Mahindra University

Dr. Mallepalli is a Ph.D. holder from the NALSAR University of Law, Hyderabad. Her doctoral research was focused in the field of International Trade Law, India and the Dispute Settlement System under WTO. Currently she is the Professor at School of Law, Mahindra University. Prior to this, she was associated with School of Law, Bennett University. She was with NALSAR and handled various subjects and conducted sessions for the IRS officers at National Academy of Direct Taxes. She worked as Manger-Litigation at Pricewaterhouse Coopers, Bangalore. She started her career as a practicing lawyer. Her Post-Graduation is in Law with specialization in Corporate Laws and Post-Graduate diplomas in Alternate Dispute Resolution and Business Management with (Marketing and Advertising as major). She is also an Associate member of Company Secretaries of India (ACS). Has published research articles in various journals.



Owais Hassan SHAIKH, Shaheed Zulfiqar Ali Bhutto University of Law

Dr. Owais completed his PhD with *Magna-cum-Laude* from Ludwig Maximilians Universität (Munich University), Germany. He wrote his PhD dissertation at the Max Planck Institute for Innovation and Competition in Munich. Owais also has a Master of Laws in Intellectual Property (LL.M) from Munich Intellectual Property Law Center. Apart from these, he holds an MBA and a BBA from the Institute of Business Administration, Karachi. As an Associate Professor, Dr. Owais teaches Intellectual Property Law, Competition Law and Legal Research Methods at Shaheed Zulfiqar Ali Bhutto University of Law, Karachi, Pakistan. Moreover, he is a Tutor at the World Intellectual Property Organization Academy since 2015. He advises and mentors to various technology startups. Previously he worked as Management Consultant with Germany as well as Assistant Director at the Intellectual Property Organization of Pakistan where he assisted the Registrar Trade Marks in Ex-parte hearings. He has increasingly become interested in Web 3.0 (Metaverse, NFTs) and its interaction with IP.



Kiran SHARMA, School of Law Galgotias University

This is Kiran Sharma, a Ph.D Scholar & Assistant Professor in Galgotias University. Having Intellectual Property Rights specialization in my Post Graduation, I have developed a keen interest in this subject and therefore, have also written down few articles as a part of my publications in different journals. I have also worked briefly as an Academic Associate under Prof. D. S. Sengar who was the chairman of Legal Management Area in IIM, Lucknow. Apart from this, I have worked as a copyright examiner in the Intellectual Property Office of India. I started my career in law with practicing under Standing Government Counsel, Ms. Geetanjali Sharma which provided me hands-on litigation experience in Delhi District Court, Central Administrative Tribunal as well as the Hon'ble High Court.

I have completed my integrated BA, LLB in the year 2015 from Vivekananda Institute of Professional Studies (GGSIPU) and have completed my LLM from Hidayatullah National Law University, Raipur. I have also done a Diploma in Cyber Law from Asian School of Cyber Law (GLC), Mumbai. I cleared my NET in July 2019. While I was working as a copyright examiner in IP office, I had this great opportunity of representing copyright office at the Department related Parliamentary Standing Committee on commerce held in Goa on the topic "Review on IPR regime in India".

ABSTRACTS

Tyrone BERGER, Deakin Law School, Deakin University

You Look Familiar? Impact of 3D Printing on Industrial Designs

Industrial designs are no stranger to imitation or even fraud. For centuries, designers have had to fight off copycats from reproducing their designs, thus impersonating the creator of the design. However, that could all be about to change again with the advent of 3D printing technologies (or 'additive manufacturing'). Among the main concerns raised about 3D printing are whether copies of a design have been created without any authorisation from the registered owner. Design law in Australia is appropriate to discuss here as design protection focuses on the 'overall appearance' of a product resulting from one or more visual features. Yet, the overall impression requires an assessment made from the viewpoint of the 'familiar person'. This means that the relevant impression is gained by a familiar person, whether or not they are a user of the product to which the design relates. Moreover, the reference to overall impression requires consideration of the work as a whole, not just that part of the work bearing the particular visual features. Consequently, any minor variation of a larger work may have no effect on the overall appearance. For example, where a product has many visual features in common with a competing work, but one feature is different, a familiar person may not consider one feature of difference particularly noteworthy, assuming all other features to be of equal significance. This paper considers the extent to which the concept of the familiar person will impact 3D printing activity in Australia. Presently, there are no specific provisions within the *Designs Act 2003* (Cth)

which refer to 3D printing or permitted activities associated with 3D printing. It then concludes with a brief discussion of the infringement provisions related to 3D printing and what lessons can be gained from recent developments.

P.S. ATHIRA, National University of Advanced Legal Studies, Kerala

Blockchains For Protection of Intellectual Property Rights: An Exploration

“If the Blockchain has not shocked you yet, I guarantee it will shake you soon.” The genesis of the term ‘blockchain’ in Computer sciences was as a way of describing a chain of data, structured to enable data-sharing between devices and networks. Today, it is hailed as the next big thing in computing. This evolution has great implications in every facet of human existence and has been termed as a ‘quiet revolution’. The watershed moment in the history of cryptocurrencies occurred when Mr. Satoshi Nakamoto, the ‘person’ credited with the genesis of the cryptocurrency, Bitcoin as a blockchain in 2008.

Portrayed as ‘part database, part development platform, part network enabler’, a blockchain has inherent versatility that would enable it to evolve into diverse models depending on the need and the circumstances, especially in IP registration, management and administration. Specific areas that may benefit from this include inventor/creator identification, avenues for tamper-free proof of inventorship, quantification of the contribution by each inventor to the invention, aid in inventor remuneration as well as provision of safeguards against future disputes. Other uses may include a consensus protocol-based blockchain network for the protection of intellectual property rights through registration and maintenance of time stamped registries to determine priority. Further, in enforcement of IP rights, the use of smart contracts may enable control of online piracy, especially of copyrighted material as well as in prevention of circulation of counterfeit products through use of technologies such as RFID, digital tags or QR codes.

Presently, many entities employ Software-as-a-service (SaaS) model block chains for facilitation of customized uses. The employment of tailored blockchain applications in the registration and grant processes of intellectual property administration may enable transparency and accountability as well make the process easier and more democratic in its use by applicants. Further, these decentralized mechanisms may reduce the latency in the intellectual property grant process as well as fortify it from manipulation and tampering. While the possibilities seem endless, the adaptation of the technology must be preceded by development of comprehensive clarity and understanding of the mechanism, the designing architecture must be responsive to the needs of the IP system and above all be transparent and trustworthy.

Lorenzo FERRUZZI, University of Bologna

ICO: An Alternative Source of Financing SMEs

The Distributed Ledger Technologies (DLT) as the blockchain in the last year are increasingly used, as an alternative mechanism to traditional banking channels, to raise capital for small and medium-sized enterprises. Among the most innovative applications are the so-called Initial Coin Offerings (ICOs) which consist of the creation of digital tokens by start-up companies (often SMEs) and their distribution to investor, in exchange for fiat currency or other cryptocurrencies (like Bitcoin). This mechanism facilitates the exchange of value without the need for a trusted central authority or intermediary, like bank.

ICOs are generally viewed as similar to other financing methods, like the Initial Public Offering (IPOs), crowdfunding and venture capital. However, they actually differ from these mechanisms in several respects. In particular, with regard to the IPOs, both constitute public offering of instrument that recognize certain rights to the subscriber and are used as ways to raise financing for the issuing company. However the similarities are limited to the terminology because these two mechanisms are different at most level (e.g. the IPOs are generally used by already established company with a mature business proposition instead of the ICOs that are undertaken by start-ups).

For what concern the regulators' approach, some of the latter, such as ESMA, FCA, BaFin, and FINMA, have stated that on the basis of the relevant facts and circumstances each ICO shall be different and must be thoroughly evaluated in order to decide whether it falls or not within the scope of existing regulations. It is quite evident that a regulatory framework would also serve to mitigate some of the risks inherent in ICOs. This type of transaction entails considerable risks for investors and in terms of compliance with the law. The investor must take into account that, terms and conditions provided by the issuer are often insufficient, misleading and do not achieve a comparable level of transparency comparable to another regulated instrument. Moreover, this type of instruments is typically used in the start-up phase of the company, and as consequence the performance and development of the latter are unpredictable and, in any case, are subject to significant price fluctuations. For what concern the compliance with law, the ICOs are often susceptible to fraud, money laundering and terrorist financing.

Manjula MALLEPALLI, School of Law, Mahindra University

Impact of Digital Technologies on World Trade and Regulatory Framework

The technological advancements and digitalization have changed the world behavior on the facets of social, commercial, political, financial and economic relations. The digital revolution has paved the way for new way of doing business which has reduced time and cost of the cross border commercial transactions. The Covid-19 pandemic situation has emphasized on the significance of digitalized world where many of the service-oriented industries have carried on their business without much hindrance during the lockdown. It is observed that 65 percent of customer interactions are digital and 41 percent of the interactions between customers and North American companies were digital. By using the internet technologies, the new entrepreneurial ventures are born global. As the technology has allowed the countries to have borderless transactions and where the economies are interrelated, interdependent and integrated this has given rise to the complex issues of regulatory mechanism.

As per the McKinsey report eighty six percent of technological based startups are having cross-border operations. Nine hundred million people have international connections on social media, and three hundred and sixty million people take part in cross-border e-commerce. Over a decade, global flows have raised world GDP by at least by ten percent; this value totaled \$7.8 trillion in 2014 alone. Data flows now account for a larger share of this impact than global trade in goods. Digital commerce already accounts for roughly twenty percent of global trade and is projected to increase to twenty five percent by 2025 and by 2030, Artificial Intelligence (AI) could create additional global economic activity of around US \$13 trillion. In this context it is imperative to analyze the challenges of AI to align with the global trade governance.

The digital globalization has created a lacuna in the regulatory framework as the policy making procedure has become more complex. The technological innovation has always challenged the regulatory framework as the nation states are not adept in framing the policies and legal systems in tandem with the technological growth. IoT, Big Data, Deep Learning and AI are the enablers of digital transformation across many industries which have reshaped real world we live in, with self-driving cars, digital assistants, robo-advisors, and automated legal practices etc. AI technology has posed a newer challenge not just in the intellectual property rights but also human rights. There are number of anomalies when it comes to the regulation of IPR within AI for instance the ownership of patent and copyright and great concerns over the infringement issues and the penalties involved.

Thus, this paper attempts to demonstrate the challenges of the Artificial Intelligence and how the nation states are adopting the measures to synchronize the domestic legal framework with the world trade regulatory regime with regards to TRIPs Agreement (the Patents, Copyrights, Trademarks), GATS, Cybersecurity and Human rights; and E-Commerce Agreement at WTO.

Owais Hassan SHAIKH, Shaheed Zulfiqar Ali Bhutto University of Law

IP in the Metaverse

Humanity has come a long way from Neal Stephenson's first use of the term 'Metaverse' in his punk novel *Snow Crash*. It is now widely understood to be the next big thing in our digital lives, partly thanks to Mr. Zuckerberg of *Meta*, the reincarnated *Facebook*. Metaverse, created and embellished by content creators, will provide unprecedented immersive experience to users. At the same time being the 'other world,' nothing in the Metaverse will be natural. Hence, this core or fundamental characteristic of the Metaverse means: Metaverse is IP! And it will be important for all types of IP including the contemporary ones: patents, copyrights, trademarks and designs. Life in the Metaverse is further enabled by the recent digital advancements in instant distribution of rights and online payments in the form of Fungible (cryptocurrencies) and Non-Fungible Tokens (NFTs). The latter is considered to be essential to establish and transfer ownership and license use of the Metaverse content. This presentation explores the centrality of IP in the conceptualization of Metaverse specially the continued appropriateness of legacy IP laws, content ownership and use, private international law of IP including determination of jurisdiction and applicable law, appropriateness of NFTs to establish ownership and last, but not the least, the social/access issues Metaverse may pose to the inhabitants of the *realverse*.

Kiran SHARMA, School of Law Galgotias University

3D Printing and IP Laws: Advantages and Challenges

In several disciplines, including medical, 3D printing is leading to tremendous improvements. Bioprinting is a method of creating human tissue-like structures using a 3D printer and living cells. These tissue-like structures allow researchers to test medications and conduct clinical trials without having to use real people. If a patient requires an organ transplant, many scientists are now seeking to employ 3D printing to build new organs from the patient's own cells. 3D printing, also known as "additive manufacturing" in some circles, is the process of building three-dimensional things by layering materials such as plastic, rubber, or metal. A digital model, usually a computer-aided design (CAD) file, is used to "print" the actual product.

CAD files can be made in a variety of ways, including scanning an object or designing the file from scratch. But what are the implications of this quickly changing and potentially transformational technology for intellectual property (IP)? For organisations that rely on innovation, 3D printing has a lot of potential benefits. 3D printing, in particular, allows them to cut costs when creating, designing, and testing new items, as well as upgrading existing ones. They no longer need to pay for expensive prototypes because 3D printers can quickly and cheaply produce several iterations of complicated elements in-house. Virtually every aspect of IP law is affected by 3D printing technology, including copyright, patent law, design law, and even geographical indicators. The questions here is, can IP rules accommodate such a broad technology in their existing form, or do they need to be reformed? Is current intellectual property law sufficient to safeguard persons involved in 3D printing processes and the items they create? Or, similar to the arrangements in existence in some jurisdictions for database protection, might it make sense to consider creating sui generis right for 3D printing to address emerging challenges?