

IJLT

THE INDIAN JOURNAL OF
LAW AND TECHNOLOGY

Volume 13 | Issue 1 | 2017

[Cite as: 13 (1) IJLT, < page no. > (2017)]

NATIONAL LAW SCHOOL OF INDIA UNIVERSITY
BANGALORE

Subscription: INR 800

© The Indian Journal of Law and Technology 2017

The mode of citation for this issue of The Indian Journal of Law and Technology 2017 is as follows:

13 (1) IJLT, <page no.> (2017)

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission.

The articles in this issue may be reproduced and distributed, in whole or in part, by non-profit institutions for educational and research purposes provided that such use is fully acknowledged.

Published by:

Student Bar Association

National Law School of India University

Nagarbhavi, Bangalore – 560072

Website: www.ijlt.in

Email: ijltedit@gmail.com or editorialboard@ijlt.in

Distributed exclusively by:

Eastern Book Company

34, Lalbagh, Lucknow - 226 001

U.P., India

Website: www.ebc.co.in Email: sales@ebc-india.com

The views expressed by the contributors are personal and do not in any way represent the institution.

IJLT

WWW.IJLT.IN

THE INDIAN JOURNAL OF
LAW AND TECHNOLOGY

Volume 13 | Issue 1 | 2017

CHIEF PATRON

Prof. Dr. R. Venkata Rao
Vice Chancellor
National Law School of India University

BOARD OF EDITORS

Chief Editor

Aradhya Sethia

Deputy Chief Editor

Aditi Shukla

Editors

Nimoy Kher
Anumeha Karnatak
Ipshita Bhuwania
Shubham Jain
Aniruddha Majumdar

Administrative Member

Aman Saxena

Technical Member

Mohnish Mathew

Observer

Akash Deep Singh

Faculty Advisor

Dr. Nagarathna A

Senior Assistant Professor of Law,
Chief Investigator, Advanced Centre on Cyber Law & Forensics,
National Law School of India University, Bangalore.

IJLT

THE INDIAN JOURNAL OF
LAW AND TECHNOLOGY

Volume 13 | Issue 1 | 2017

BOARD OF ADVISORS

Hon'ble Justice S. Ravindra Bhat
Delhi High Court

Prathiba Singh
Sr. Advocate, Delhi

Dr. T. Ramakrishna
Professor of Law, National Law School of India University,
Bangalore, India

Chinmayi Arun
Research Director of the Centre for Communication Governance
at NLU Delhi.

Dr. Shamnad Basheer
Founder, SpicyIP

Malavika Jayaram
Fellow at the Berkman Center for Internet and Society at Harvard
University; Executive Director, Digital Asia Hub, (Hong Kong)

Graham Greenleaf
Professor of Law, University of New South Wales, Sydney, Australia;
Co-Director, Cyberspace Law and Policy Centre, Sydney, Australia

CONTENTS

ARTICLES

Big Data & Litigation: Analyzing The Expectation of Lawyers to Provide Big Data Predictions when Advising Clients <i>—Siegfried Fina & Irene Ng (Huang Ying)</i>	1
Internet Intermediary Liability: WILMap, Theory and Trends <i>Giancarlo F. Frosio</i>	16
Oxford University v. Rameshwari Photocopy Services - Reshaping the Copyright Discourse <i>Kartik Chawla</i>	39
The Question of Aerospace Vehicles: In Support of Dual Legal Systems for a Dual Purpose Craft <i>Marshall Mckellar</i>	53

BIG DATA & LITIGATION: ANALYZING THE EXPECTATION OF LAWYERS TO PROVIDE BIG DATA PREDICTIONS WHEN ADVISING CLIENTS

—Siegfried Fina* & Irene Ng (Huang Ying)**

I. INTRODUCTION

In recent years, the words “big data” have reverberated in multiple industries across numerous countries – from social media platforms to banks such as Facebook¹ and Morgan Stanley² respectively, companies are joining the big data bandwagon. The legal industry has also begun embracing the use of big data analytics in their work—in early 2016, it was reported that lawyers have used big data tools, for the purposes of “billing, time management, marketing and customer relations functions”. Considering the growing interest and reliance by law firms on big data, it is interesting to explore the trend of how such “technology could be applied to the fundamental research and case preparation which is the core of their job”.³ One such possibility is the use of big data in litigation.

* Jean Monnet Professor of European Union Law and Associate Professor of European Union Law and Technology Law at the University of Vienna School of Law and Danube University Krems, Austria; Visiting Professor of Law and Co-Director of the Stanford-Vienna Transatlantic Technology Law Forum at Stanford Law School, USA.

** Fellow at the Stanford-Vienna Transatlantic Technology Law Forum; Ph.D. Candidate, University of Vienna.¹

¹ Jamie Lockwood, ‘Facebook makes big impact on Big Data’ (*www.facebook.com*, 19 September 2013) <<https://www.facebook.com/notes/facebook-academics/facebook-makes-big-impact-on-big-data-at-vldb/594819857236092/>>.

² Eva Wolkowitz and Sarah Parker, “Big Data, Big Potential: Harnessing Data Technology for the Underserved Market” (*www.morganstanley.com*, 2015) <http://www.morganstanley.com/sustainableinvesting/pdf/Big_Data_Big_Potential.pdf>.

³ Bernard Marr, “How Big Data is Disrupting Law Firms and The Legal Profession” (*www.forbes.com* January 20, 2016) <<https://www.forbes.com/sites/bernardmarr/2016/01/20/how-big-data-is-disrupting-law-firms-and-the-legal-profession/#5b6de8b27c23>>.

This general article intends to provide a background of big data and law, and to provide insights on the interaction between professional legal ethics and big data analytics, i.e. whether a lawyer can be disciplined for failing to use big data analytics in litigation cases. While most references in this article will be made to developments in the US legal technology/legal industry scene, this article will also provide a short segment on general developments of big data and law in the developing world. Ultimately, this article hopes to shed light on what litigators may expect from the use of this technology that is gaining traction in the legal industry.

II. BIG DATA X LAW

“Big data in general, and predictive data analytics in particular, are the potential holy grail in the practice of law.”⁴

While there is “no standard definition⁵” on big data, it can, in a nutshell, refer to “extremely large data sets that may be [analyzed] computationally to reveal patterns, trends, associations especially relating to human [behavior] and interactions”.⁶ Certain law firms have used big data in their work, and the next few sections will delve further into the intersection between big data and law, and in particular, big data and litigation.

A. The Intersection of data analytics and law

The use of big data in law firms is not novel. According to Stanford Law School’s CodeX legal technology directory, there are presently at least 52 startups or companies in the legal tech industry that are providing or aim to provide data analytics services;⁷ some focus on providing data analytics for corporate lawyers doing due diligence through “uncover[ing] relevant information from contracts”,⁸ whereas others assist litigation lawyers in predicting the chances of a successful appeal by a specific judge.⁹ Besides startups, other companies in the legal support services industry have penetrated the big data market too. One example is LexisNexis, which offers a

⁴ Sharon D. Nelson and John W. Sinek, “Big Data: Big Pain or Big Gain for Lawyers?” [July/August 2013] 39 *Law Practice Magazine* <http://www.americanbar.org/publications/law_practice_magazine/2013/july-august/hot-buttons.html>.

⁵ Ibid.

⁶ ‘Big Data’ (*Oxford Dictionaries*) <https://en.oxforddictionaries.com/definition/big_data>.

⁷ ‘Legaltechlist’ (*Stanford Law School* 2017) <<http://techindex.law.stanford.edu/companies?category=8>> accessed 15 January 2017.

⁸ ‘Kira Systems’ (*Kirasystems.com*) <<https://kirasystems.com/>> accessed 15 January 2017.

⁹ ‘Premonition’ (*Premonition.ai*) <<http://www.premonition.ai>> accessed 7 January 2017.

software called *LexMachina* that “mines litigation data, revealing insights never before available about judges, lawyers, parties, and the subjects of the cases themselves, culled from millions of pages of litigation information”,¹⁰ another example is Bloomberg’s “Bloomberg Law Litigation Analytics”, which aims to “identify meaningful patterns among infinite legal data points to inform your litigation strategy, predict possible outcomes, and better advise clients (...)”.

It can thus be said that the legal industry, at least in the US where a large proportion of these data analytics companies target, is not devoid of legal analytics. The question therefore is how quickly law firms – an industry that is claimed to be “notoriously slow-to-evolve”¹¹ – will respond to these developments. It is suggested that law firms may adopt them on the following grounds: (i) whether it is compulsory, i.e. they are required by the jurisdiction or state’s bar association to use data analytics in their legal services, failing which they face sanctions for breach of professional legal ethics; or (ii) whether it is complimentary, i.e. it is not an obligation for lawyers to perform data analytics on their tasks at hand, but rather a perk that the client benefits from.

In this paper, the issue is relatively moot if the provision of legal data analytics is a complimentary service rather than an obligatory one. The more interesting question is the former – considering that legal service support providers are doling out big data analytics services to law firms to allow them to better advise their clients with arguably better advantages, will this be seen as a compulsory service that law firms must offer, failing which they fall foul of their professional duties of working with due diligence? To determine this question, the paper will first discuss big data in litigation, next a discussion on the scope of the ethical duties of lawyers vis-à-vis clients, and finally analyze whether providing big data analytics is compulsory for lawyers.

B. The Use of Big Data in Litigation

As previously mentioned, both Bloomberg and LexisNexis have developed their own legal analytics platform. Both platforms target litigators – by “min[ing] litigation data”¹² and “case law judicial dockets”¹³ to reveal

¹⁰ ‘LexMachina’ (*LexisNexis*) <<https://www.lexmachina.com>> accessed January 4, 2017.

¹¹ Sara Randazzo, “Data Tools Offer Hints at How Judges Might Rule” *The Wall Street Journal* (December 13, 2016).

¹² “LexMachina” (*LexisNexis*) <<https://www.lexmachina.com>> accessed January 4, 2017.

¹³ ‘Bloomberg Law Litigation Analytics’ (*Bna.com*, 2017) <<https://www.bna.com/bloomberg-law-litigation-m57982078880/>> accessed 8 January 2017.

insights and trends that may be of strategic use to litigators advising their clients;¹⁴ some examples will be provided below.

i. Preparing or filing the statement of claim

When preparing to file the statement of claim, some key considerations that come into mind include factors such as which jurisdiction is the best place to commence the suit, which litigator has the best odds when addressing which judge, what is the average amount of damages the client can expect to receive should he or she win the case. Choosing the right jurisdiction or state to commence the litigation suit may be critical for certain types of lawsuits. For instance, Mr. James C. Yoon, an IP litigator in the US with Wilson Sonsini Goodrich & Rosati Professional Corporation, indicated at Stanford Law School's International Summer Program in Understanding US IP Law in August 2016 that based on statistics provided by *LexMachina*, two of the most popular districts for patent cases are Eastern District of Texas and the District of Delaware, with the former having a lower "win" rate for both Plaintiff and Defendant, although the former having a higher voluntary settlement rate as well.¹⁵ These statistics can be beneficial to clients who are considering IP litigation and their strategy therein. Companies such as Premonition provide that allows users to determine which lawyer has better odds in winning when appearing before a specific judge.¹⁶ Outside the US, a French service called *Prédicite* uses an algorithm to "calculate the probabilities of resolution, the amount of compensation, and identify the most influential means",¹⁷ whereby "finding the best argument for your client becomes simple".¹⁸

Another example is LexisNexis' *LexMachina*, which provides data analytics for the statutory damages awarded in the area of Copyright Litigation. This may be useful to clients who are considering whether the legal fees and effort expended in the litigation suit are justifiable vis-à-vis the amount of damages recoverable. Finally, data analytics tools in the market are also providing clients with the ability to discover more insights about your counsel as well – by providing "track records of your Attorney",¹⁹ or selecting a "Co-Counsel who [has] never lost in front of certain Judges".²⁰ With such

¹⁴ Ibid.

¹⁵ James C. Yoon, 'IP Litigation in United States' (On file With Stanford Law School, Unpublished Presentation, 5 August 2016).

¹⁶ "Premonition" (*Premonition.ai*) <<http://www.premonition.ai>> accessed 7 January 2017.

¹⁷ "Predictice" (*Premonition.AI*) <<https://premonition.ai/law/>> accessed February 28, 2017.

¹⁸ Ibid.

¹⁹ "Legal" (*Premonition.AI*) <<https://premonition.ai/law/>> accessed February 28, 2017.

²⁰ Ibid.

information, clients now have more factors of consideration before deciding to launch into the lawsuit, and with which lawyer by his side.

ii. Discovery

Upon deciding to commence suit, data analytics can be used during the discovery phase to plough through the volumes of discovered data and information to predict useful trends for the litigation lawyers. With the rise in large amounts of electronic data (e.g. e-mails, PDF files, or even AutoCAD drawings), big data analytics tools can “help make sense of this tsunami of information and give attorneys faster, more reliable access to potentially relevant data that needs to be processed and reviewed”.²¹ Some possible functions include the algorithm suggesting to the litigator that there are some missing documents based on a mismatch between the list of items produced by the opponent for discovery and the actual items eventually produced, or that based on previous cases of the same scale and issue, there are some commonplace documents that are missing in the lawyer’s volume of discovered documents. These may help a lawyer to be more efficient and reduce negligence arising from missing out critical documents in the stacks of seemingly unending paper trails, and will be especially useful for lawyers in litigation cases with voluminous amounts of documents.

iii. Appealing

Data analytics can provide information on how successful an appeal will be, if sought. This can include tracking cases to check the success rate of appeals and whether there are any recent cases that have succeeded on appeal,²² thereby helping clients decide whether they would like to expend more resources in this case, or to cut losses and move on.

C. Pitfalls in the Use of Big Data Analytics

While big data appears to benefit clients by providing them with insight on the likelihood of their claim’s success and finding the best lawyer, there are some potential pitfalls such as (i) the coverage and scope of big data; (ii) the reliability of the data used by such data analytic tools in predicting trends; and (iii) novel issues in litigation and the usefulness of big data analytics therein – these will be discussed subsequently.

²¹ Sharon D. Nelson and John W. Sinek, “BIG DATA: Big Pain or Big Gain for Lawyers?” [July/August 2013] 39 *Law Practice Magazine* <http://www.americanbar.org/publications/law_practice_magazine/2013/july-august/hot-buttons.html>.

²² ‘Advanced Docket Search’ (*Docket Alarm*) <<https://www.docketalarm.com/features>>.

i. How big is big data?

Predictions and trends are derived from data – generally, the bigger the sample size, the more accurate the prediction should be.²³ What is important is thus the sample size used by the analytics tool to predict. For instance, if the court of a specific district and a specific state has only heard one copyright case and ruled in favour of the plaintiff, and the analytics tool scans all possible case law in that state and suggests to the user that the success rate is 100% (without highlighting that only one case was available), can this be prediction be seen as reliable?

This then becomes a selling point for data analytics tools. *Premonition* states that it has “The World’s Largest Litigation Database”. It has further mentioned that *Premonition* “has more coverage than Thomson Reuters, LexisNexis and Bloomberg combined”, because it has the largest collection of court data from several jurisdictions, such as the US Federal System and the UK High Courts.²⁴ One would note that the sample size of data used to churn out big data predictions in each of these data analytics tools – from LexisNexis’s *LexMachina*, Bloomberg’s Law Litigation Analytics, to *Premonition* – are different. In this regard, how does a lawyer discern whether which legal analytics platform provides the most reliable results, especially if platforms do not disclose the source in which they retrieve their data to crunch numbers and produce predictions? This concern will be debated in the next section, i.e. the reliability of the data provided by these platforms.

ii. Reliability of the data

One important question is whether analytic tools produce reports based on verifiable data sources (e.g. cases provided directly by the relevant judicial authorities such as the Canadian Legal Information Institute or Australian Legal Information Institute), or is derived by a third-party that provides softcopy decisions converted from hardcopy decisions. Furthermore, there is no guarantee that the hardcopy to softcopy conversion is free of mistakes. Even if lawyers operate on the basis that their legal data analytics tools are suggesting trends based on reliable data, they should note that if the reliability of the data is questionable, their predictions and therefore advice to their clients may quickly become incorrect or irrelevant.

²³ “Premonition” (*Premonition.ai*) <<http://www.premonition.ai>> accessed 7 January 2017.

²⁴ ‘Court Data’ (*Premonition*) <<https://premonition.ai/court-data/>> accessed 8 January 2017.

iii. Novel Issues in Litigation

Data analytics may be less useful in situations where the lawyer is arguing for a novel issue. The law, or at least the common law, is a continuously evolving behemoth. It is therefore not surprising if lawyers present a novel issue before the judges, in the hopes of succeeding and creating new law. Here, while big data may provide insights on how successful certain cases will be in a jurisdiction, this insight that is premised on established claims may be inapplicable when the lawyer is presenting a novel claim. Lawyers must thus be careful when relying on big data analytics to advise their clients as they should not provide false expectations to their clients, failing which, they may become liable for professional negligence. The next section will discuss professional negligence and the ethical duties of lawyers vis-à-vis clients.

III. ETHICAL DUTIES OF LAWYERS VIS-À-VIS CLIENTS

Generally, lawyers must be admitted to a bar association in their respective jurisdictions before they can practice law or represent a client before the court. They are usually bound by ethical codes and regulations, which lawyers owe to their clients and the profession. Lawyers are regulated by both common law tradition and civil law tradition jurisdictions. The difference therein lies in what duties and obligations are present in each jurisdiction's legal profession rules and how strict these are regulated by the relevant institution. This duty is usually enshrined in an ethical code for lawyers, the rules of which are enforced by the state or jurisdiction's bar association and lawyers must adhere to their respective ethical code.

Lawyers owe several duties such as the duty to act in their clients' best interest and the duty of confidentiality. One specific duty of the lawyer that is important in this discussion is that of the lawyer's duty to their clients to act with reasonable diligence and promptness. Under US law, most states use the American Bar Association's Model Rules of Professional Conduct ("ABA's MRPC") as a guideline.²⁵ Lawyers are expected to act with competence and diligence and according to Rule 1.1 of the ABA's MRPC, competent representation is defined as "require[ing] the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation".²⁶

²⁵ 'Model Rules of Professional Conduct' (*American Bar Association*) <http://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct.html> accessed 8 January 2017.

²⁶ 'Rule 1.1: Competence' (*American Bar Association*) <http://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct.

The ABA has provided further guidelines; as per Comment [1] of the ABA's guidelines for Rule 1.1, one relevant factor determining the competency includes "the preparation and study that the lawyer is able to give to the matter."²⁷ Comment [5] elaborates on when a lawyer is competent in his or her preparation; "competent handling of a particular matter includes inquiry and analysis of the factual and legal elements of the problem, and use of methods and procedures meeting the standard of competent practitioners".²⁸ The thoroughness of preparation depends on "in part by what is at stake", i.e. a major litigation suit may "require more extensive treatment that matters of less complexity and consequence".²⁹

Further, Rule 1.3 of the ABA's MRPC states that "a lawyer shall act with reasonable diligence and promptness in representing a client".³⁰ The lawyer should "... take whatever lawful and ethical measures are required to vindicate a client's cause or endeavor."³¹ Based on these comments by the ABA, it can be discerned that a lawyer's standard of competence in the use of methods and procedures is held to that of a competent practitioner and the complexity of the case, coupled with the general need for lawyers to seek lawful measures to resolve his or her client's disputes. These ideas will form the backdrop for the later discussion on whether a lawyer is deemed to have breached his ethical duties if he fails to use big data analytics when evaluating a litigation lawsuit for his or her client.

It should be noted that this duty of diligence and competence is not a US-isolated requirement. In other common law jurisdictions, such as the UK, lawyers – both barristers and solicitors – are expected to act diligently and competently when serving their clients as well.³² Such a duty is similarly imposed in countries following the civil law tradition such as Austria.³³ In this regard, the duty of diligence and competence appears to be a rather

html> accessed 8 January 2017.

²⁷ 'Comment on Rule 1.1: Competence' (*American Bar Association*) <http://www.american-bar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct.html> accessed 8 January 2017.

²⁸ Ibid 5.

²⁹ Ibid.

³⁰ 'Comment on Rule 1.3: Competence' (*American Bar Association*) <http://www.american-bar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct.html> accessed 8 January 2017.

³¹ Ibid.

³² 'Ethics' (*The Law Society*) <<http://www.lawsociety.org.uk/support-services/ethics/>> accessed 15 January 2017.

³³ Rechtsanwaltsordnung [RAO] [Act on Attorneys] Reichsgesetzblatt [RGBl] No. 96/1868, as amended, <<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10001673>> (Austria), §1.

uniform requirement of lawyers, although each jurisdiction may differ in the standard in which they hold their practitioners to. This will similarly serve as an interesting discussion art Part IV.d's discussion on how lawyers from the developing and developed world may be held to different standards on using big data analytics.

When a breaches the aforementioned duties of competence and diligence, he can be found guilty of professional negligence. The ABA provides that a lawyer can be disciplined and be subject to professional misconduct if the lawyer "violates or attempts to violate the Rules of Professional Conduct".³⁴ The critical issue is therefore when a lawyer will be deemed to have breached his standard of care to his client if he fails to use data analytics in his litigation case, therefore resulting in higher costs for his client or even the loss of the case itself, and be subject to discipline.

IV. THE PERPLEXITIES OF A MODERN CLIENT'S DEMANDS

Compared to a lawyer 30 years ago, where using laptops were not mainstream nor were smartphones invented, the lawyer of 2017 works with a wide array of technology gadgets: smartphones (or sometimes two), laptops, online research databases – the list goes on. This does not mean that clients have not caught up – one can receive a client's e-mail instructing to commence litigation around midnight, after working hours.³⁵ It would not be unsurprising if clients demand lawyers to use high-tech methods to litigate cases to increase their chances of winning, or reduce legal costs by improving efficiency. The lawyer must keep up with his modern client's demands, and bearing this in mind, this article will analyze the following issues arising from the use of big data in litigation: (i) the impact of big data analytics on litigators; and (ii) whether a lawyer can be disciplined for failing to use big data analytics in litigation.

A. The Impact of Big Data Analytics on Litigation Lawyers and the Legal Industry

The introduction of big data analytics into practice have impacted litigation lawyers in a myriad of ways, from (i) greater advantages from the insights in strategizing litigation lawsuits; (ii) increases in the transparency

³⁴ 'Rule 8.4: Misconduct' (*American Bar Association*) <http://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct.html> accessed 8 January 2017.

³⁵ This is based on the co-author's own experience at a law firm.

of information relating to the performance of litigation lawyers, to (iii) how affordability of these analytics services affects competition amongst law firms.

i. Advantages of Big Data in Litigation Cases

The virtues of the use of big data in litigation cases have been extolled by several commentators. Some of these advantages include allowing lawyers to “determine profitability of a case type”,³⁶ engage in “more efficient discovery”,³⁷ “have an edge before the trial begins”,³⁸ and “predict the legal system”;³⁹ others have mentioned that a “slew of services... are offering far more granular information about judges”.⁴⁰ While it appears that several big law firms such as Dentons, Squire Patton Boggs, and Morgan Lewis have jumped onto the legal analytics bandwagon and signed up with LexMachina,⁴¹ and articles commenting on the potential usefulness of big data and law, it remains difficult to conclude with certainty that the costs incurred in subscribing or developing such legal analytics tools translates to actual value for the firm or the client or both. Big data in law is a relatively new trend, and it may thus take time before a representative study on the results of these legal analytics tools will be available. To this end, it will be necessary to monitor this industry and await for reports, studies or even balance sheets of these legal analytics providers before determining whether big data has indeed provided lawyers with advantages that are value for what it’s worth.

ii. Increase in Information Transparency on the Performance of Lawyers

With algorithms and software such as ‘*Premonition.ai*’ that can check how lawyers perform before judges, it means that information on the performance of lawyers is now available publicly. This can reduce the information asymmetry between lawyers and clients, and also allows clients to have a clearer idea of how the lawyer that he intends to engage will generally perform in a given case, based on statistics.

³⁶ Dan Steiner, ‘Data Analytics and Your Law Firm’ [28 April 2016] *Law Technology Today* <<http://www.lawtechnologytoday.org/2016/04/big-data-law-firm-data-analytics-influencing-cases/>>.

³⁷ Ibid.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Sara Randazzo, ‘Data Tools Offer Hints at How Judges Might Rule’ *The Wall Street Journal* (December 13, 2016).

⁴¹ ‘Law Firms’ (*LexMachina: Lexis Nexis*) <<https://lexmachina.com/law-firms/>> accessed 8 January 2017.

Another effect of this increase in information transparency through big data analytics is that a litigator's experience in the field is now substitutable with reports provided by big data, i.e. the substitution of information gained from experience with information gained by data. Previously, it would be imprudent for a litigator to sift through every single US state court case or US Federal Court case to determine which jurisdiction is the best to commence, say a patent lawsuit or securities lawsuit due to voluminous work that can be cost inefficient. Knowing where to commence a lawsuit is based on experience, after having fought multiple cases and read leading authorities, digests or cases on the subject. However, all this information is now available with a few clicks from the computer that can predict trends quickly, such as in '*LexMachina*' or '*Premonition*'. This prediction maybe even more accurate as the computer system can screen through much more cases in a shorter period of time than a human can.

If such knowledge gained by experience is so easily replaceable, and with data tools tracking performance, litigators have to keep up with the legal landscape by offering analyses that computers or big data cannot provide, e.g. offering brainstorming and providing the client with multiple possibilities to prevent a loss or a pyrrhic victory, and to hone his skills and abilities in this field to not be earmarked as a poor performing lawyer by clients.

iii. Affordability of Legal Analytics and Competition in Law Firms

The availability of resources a lawyer can work with is dependent on how much his or her firm is willing to pay to subscribe to the relevant databases and services. While there are propositions that "by analyzing case outcomes and the legal system on a regular basis, big data can level the playing field, offering small firms the same advantage that big firms have",⁴² it is respectfully suggested that this depends on whether small firms may even be able to afford the big data analytics services to begin with. As the prices of Premonition.ai, Bloomberg Law Litigation Analytics and LexisNexis' *LexMachina* are not published online; it is difficult to determine whether the costs of such services are value for money to small, boutique law firms that may be cost conscious or have a lesser margin to pay for such services.

While big data does allow law firms to compete on an equal playing field since small firms working with lesser associates can provide results or analyses similar to big firms that have more manpower, this argument is premised

⁴² Dan Steiner, 'Data Analytics and Your Law Firm' [28 April 2016] *Law Technology Today* <<http://www.lawtechnologytoday.org/2016/04/big-data-law-firm-data-analytics-influencing-cases/>>.

on the fact that the small law firm can afford to commit funds to conduct research and development in legal innovation,⁴³ or justify paying for the big data services to begin with. This then leads in to the next question – if a law firm, big or small, does not use big data analytics in his or her work and it is arguable that there are large benefits from using such legal analytics services, should he or she be in breach of his professional ethical duties as a lawyer?

B. Can a Lawyer be Disciplined for Failing to use Big Data Analytics in Litigation?

Based on the ABA's guidelines, a lawyer's standard of competence in the "use of methods and procedures" is pegged to that of "competent practitioners".⁴⁴ What is a competent practitioner is dependent on the standard of the industry at that given time when the client files a complaint. Is a practitioner thus incompetent if he fails to use big data analytics? While some big law firms and certain specific lawyers have infused big data analytics in their legal practice or extolled the virtues of big data respectively, there is still data lacking in how many firms exactly have adopted or used such services in their prediction of litigation suits. Currently, it is thus difficult to confirm whether not using data analytics tools during practice is deemed to be incompetence on the lawyer's part.

While lawyers are expected to keep "abreast of changes in the law and its practice",⁴⁵ this is not an obligation but rather an appeal to ensure that lawyers remain up-to-date in their own market. In the case of big data analytics whereby this technology is relatively new, not all lawyers may have used nor even heard of this technology. The legal industry, however, may become more receptive to this if clients demand such legal analytics to be infused in the lawyer's legal opinion. If the provision of data analytics reports to better strategize litigation is what is expected of the average client that walks into the firm, then there may be a stronger argument that a lawyer who fails to use legal data analytics may be deemed incompetent. The disciplinary tribunals may have a stronger case if the respective Bar Associations or the ABA have dictated that practicing lawyers must complete legal data analytics courses and strongly recommends lawyers to consider such reports when advising their clients. As of present, it appears that no bar associations have indicated that the use of big data in litigation is compulsory – therefore, this

⁴³ Bryan Cave, 'Purposefully Structured for Innovation' <<https://www.bryancave.com/en/about/innovation.html>> accessed 8 January 2017.

⁴⁴ 'Comment on Rule 1.1: Competence' (*American Bar Association*) <http://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct.html> accessed 8 January 2017.

⁴⁵ *Ibid.*

remains a relatively open-ended question until further guidance is provided by the regulating authorities of the legal profession.

Ultimately, however, as much as data analytics can be useful in providing litigators and clients with a clearer idea of the landscape and environment that they are operating in, the litigator still needs to make his judgment call on how to proceed with the suit. Big data analytics is used to assist the litigator in making a more informed choice, rather than to advise or convince the lawyer to commence litigation in a specific manner and jurisdiction. In short, the machine provides information and reports, and the litigator decides. Thus, save for a failure on the part of the data analytics tool, the litigator should remain liable and responsible for his decisions in the litigation suit after having reviewed the data analytics reports – this includes situations where the litigator misinterprets or misrepresents the trends and predictions as provided by the data analytics report to his clients. An experienced litigator in his field of expertise should suspect the accuracy of the report if he feels that it is incorrect because of perhaps the lack of case sample size when producing the report, or if the data set used is unreliable or incorrect. Litigators must thus be careful as it is possible that a litigator can remain liable to disciplinary action if he or she misinterprets or misrepresents the trends or predictions provided by the data analytics reports. Otherwise, presently, it appears that the provision of big data analytics is more of a complementary perk to the client rather than a compulsory obligation.

V. BIG DATA X LITIGATION IN THE DEVELOPING WORLD

Big data is possible because of a combination of factors, which can be generally categorized in three areas: hardware, software, and data availability requirements. The research and development of big data analytics is possible because of the large voluminous of data made available to a powerful enough computer that can process the information expediently and a well-developed software algorithm that can sift and detect the data markers set by data analysts. Countries that have this means can expend sufficient resources to digitize hardcopy cases, and have sufficient expertise and funds to develop the necessary software and hardware infrastructure required. Legal analytics service providers have generally covered jurisdictions in the developed world such as the US, UK, Australia and France.⁴⁶ What is common with

⁴⁶ ‘Premonition’ (*Premonition.ai*) <<http://www.premonition.ai>> accessed 7 January 2017; ‘Predictice’ (*Premonition.AI*) <<https://premonition.ai/law/>> accessed February 28, 2017.

these jurisdictions is the easy access to digitized case law or judicial decisions that allows data analytic tools to work with.

This section thus intends to explore the use of big data analytics in developing countries, including the inconsistent development of such tools for legal markets. For a more focused discussion and in consideration of the audience, this article will use India as a case study for the subsequent analyses. In India, digitization of cases or judgments has been in effect and the amount of digitized cases are sufficient for legal support service providers to confidently provide a database for such cases, and for some databases, to even provide data analytics tools based on the digitized content. For example, local legal databases such as *Manupatra* has provided “Analytics & Visualisation Tools”⁴⁷ that provides users with a range of services to ease conducting legal research.

While *Manupatra* has a “Judge Analytics”⁴⁸ function, this service intends to give “analytics of judgments written by Hon’ble judges of Supreme Court & Delhi High Court (...)”. Data analytics tools such as advising which lawyer performs best before which judge, similar to Premonition’s tools to find “which lawyer wins for your case type and judge”,⁴⁹ are still unavailable in India, although with strong digitization policies in place, it may be a sooner than later thing that startups in India will provide services similar to that of their US counterparts such as *Premonition* and *LexMachina*. If such data analytics tools are less developed and available in developing countries, the standard of competence for a lawyer in such countries vis-a-vis using legal technology will most likely be held to be lower than countries where such tools are more widespread. As bar associations are jurisdiction specific, it is ultimately the decision of the bar committee in that country to determine what is the expected technological know-how for their lawyers.

With mass digitization undertaken by developing countries, will this unevenness in provision of data analytics in litigation between developing and developed countries be narrowed in the future? In countries wherein organizations are actively digitizing and archiving case law, these developing countries have the available data to churn out big data reports. However, whether initiatives within that jurisdiction will develop initiatives to exploit such data for litigation purposes remains to be seen - this depends on a jurisdiction’s technology policies and perhaps even litigation culture, i.e. whether litigation as a dispute resolution method is often pursued. It is however not

⁴⁷ ‘Manupatra’ <<http://www.manupatrafast.com/>> accessed 28 February 2017.

⁴⁸ Ibid.

⁴⁹ ‘Premonition’ (*Premonition.ai*) <<http://www.premonition.ai>> accessed 7 January 2017.

conclusive that law firms operating in developing countries are immune to this wave of digitization and be eventually compelled by clients to use big data analytics in their litigation suits.

VI. THE FUTURE

The adoption of big data analytics in work is, in our opinion, a rather inevitable process. As a greater number of clients become acquainted with big data and see the value of using big data in the workplace, it would not be surprising for clients to expect their lawyers to keep up with the times and infuse big data in their legal work as well. For major litigation cases where the stakes are higher for the litigator to be successful, the client's demand on lawyers to produce data analytics reports to strategize the claim will be more acute. Even though the ABA and most jurisdictions have yet to impose on lawyers this need, practitioners in this field – especially those often dealing with complex litigation suits and demanding, tech-savvy clients – should not be surprised if this eventually becomes a standard service option or eventually a requirement to be provided to clients. After all, as the world embraces technological advancements, law firms should develop technologically as well in order to keep pace with modern reality.

INTERNET INTERMEDIARY LIABILITY: WILMAP, THEORY AND TRENDS

*Giancarlo F. Frosio**

ABSTRACT *To better understand the heterogeneity of the international online intermediary liability regime—with the collaboration of an amazing team of contributors across five continents—I have developed and launched the World Intermediary Liability Map (WILMap), a detailed English-language resource, hosted at Stanford CIS and comprising of case law, statutes, and proposed laws related to intermediary liability worldwide. Since its launch in July 2014, the WILMap has been steadily and rapidly growing. Today, the WILMap covers almost one hundred jurisdictions across Africa, Asia, the Caribbean, Europe, Latin America, North America and Oceania. This article begins with an introduction of the WILMap and the surrounding landscape of recent projects related to intermediary liability. The aim is to discuss the advancement in intermediary liability theory and describing the emerging regulatory trends.*

I. INTRODUCTION

It is not surprising that online intermediaries' obligations, liabilities, and responsibilities are increasingly taking the center stage of Internet policy. However, inconsistencies across different regimes generate legal uncertainties that undermine both users' rights and business opportunities. To better

* Senior Researcher and Lecturer, Center for International Intellectual Property Studies (CEIPI), Université de Strasbourg; Non-Resident Fellow, Stanford Law School, Center for Internet and Society. S.J.D., Duke University School of Law, Durham, North Carolina; LL.M., Duke University School of Law, Durham, North Carolina; LL.M., Strathclyde University, Glasgow, UK; J.D., Università Cattolica del Sacro Cuore, Milan, Italy. The author can be reached at gcfrosio@ceipi.

understand the heterogeneity of the international online intermediary liability regime—with the collaboration of an amazing team of contributors across five continents—I have developed and launched the World Intermediary Liability Map (WILMap), a detailed English-language resource, hosted at Stanford CIS, comprising of case law, statutes, and proposed laws related to intermediary liability worldwide.¹

Mapping online intermediary liability worldwide serves the goal of understanding responsibilities that online service providers (hereinafter, “OSPs”) bear in contemporary information societies. Most creative expression today takes place over communication networks owned by private companies. OSPs’ role is unprecedented due to their capacity to influence the informational environment and users’ interactions within it. The ethical implications of OSPs’ role in contemporary information societies are raising unprecedented social challenges, as proven by recent examples, like the PRISM scandal and the debate on the “*right to be forgotten*” (hereinafter, “RTBF”).

Mapping online intermediary liability worldwide entails the review of a wide-ranging topic, stretching into many different areas of law and domain-specific solutions. The WILMap has become a privileged venue to observe emerging trends in Internet jurisdiction and innovation regulation, enforcement strategies dealing with role of Internet platforms, intermediate liability for copyright, trademark, and privacy (RTBF) infringement, and the trends in moderating the speech they carry for users, including obligations and liabilities for defamation, hate and dangerous speech. Such mapping is expected to help in focusing on gaps in policies and existing legal frameworks regulating OSPs, and provide possible strategies to overcome it.

II. THE WILMAP PROJECT

By their very nature, Internet services are inherently global, but Internet companies face a real challenge in understanding how those global regimes might regulate the services they offer to the public. In search for consistency—and to contribute to this important policy debate—I developed the World Intermediary Liability Map (WILMap), a repository of information on international liability regimes.² The WILMap is a graphic interface for legis-

¹ World Intermediary Liability Map (WILMap), <https://cyberlaw.stanford.edu/our-work/projects/world-intermediary-liability-map-wilmap> [hereinafter, “WILMap”].

² The Stanford Intermediary Liability Lab (SILLab), another project I launched at Stanford Law School in 2013, functioned as an incubator for developing the WILMap and studying international approaches to intermediary obligations concerning users’ copyright

lation and case law enabling the public to learn about intermediary liability regimes worldwide and the evolving Internet regulations affecting freedom of expression and user rights. This detailed English-language resource allows visitors to select information on countries of interest, including case law, statutes, and proposed laws. Each country page includes links to original sources and English translations, if available. As the WILMap website clearly states, this resource should be used “to learn about intermediary liability regimes worldwide, and to identify places where legal regimes balance—or fail to balance—regulatory goals with free expression and other civil liberties.”³

The WILMap features legislation, pending bills and proposals imposing obligations on intermediaries, both access and hosting providers or other online intermediaries, such as payment processors. The WILMap covers wide-ranging topics, including online intermediaries’ safe harbors, e-commerce, copyright and trademark protection, defamation, hate/dangerous speech, including anti-terrorism provisions, privacy protection, and child protection online. If available, the WILMap provides relevant case law for each jurisdiction. Basically, the WILMap aims to feature case laws discussing obligations and liability of online intermediaries due to (infringing) activities undertaken by their users. The WILMap also features sections for administrative enforcement of intermediary liability online, if there are administrative agencies responsible for implementing website blocking orders or content removal in a particular jurisdiction.

Since its launch in July 2014, the WILMap has been steadily and rapidly growing. Today, the WILMap covers almost one hundred jurisdictions across Africa, Asia, the Caribbean, Europe, Latin America, North America and Oceania. The WILMap is an ongoing project. In collaboration with a network of experts worldwide, the Center for Internet and Society (CIS) continues to update and expand the map so as to cover all jurisdictions. In an effort to make the WILMap an increasingly valuable resource for activists, industry players, researchers, and the general public, the WILMap website will soon be updated with enhanced usability and data aggregation features.

The WILMap project is the result of the inputs of an amazing team of contributors from around the world, both individual researchers and institutions, who provided the necessary information to create and update each

infringement, defamation, hate speech or other vicarious liabilities, immunities, or safe harbours. See Stanford Intermediary Liability Lab, <https://www.facebook.com/groups/ILLab>; see also CIS, Intermediary Liability, <https://cyberlaw.stanford.edu/focus-areas/intermediary-liability>.

³ Homepage, WILMap, *supra* note 1.

country page. The creation of a global network of WILMap contributors also allowed promotion of synergy with global platforms and free expression groups to advocate for policies aimed at protection of innovation and other user rights.⁴

III. OTHER INTERMEDIARY LIABILITY PROJECTS

The WILMap's attempt to study intermediary liability, in order to come to terms with a fragmented legal framework, is not isolated. Mapping and comparative analysis exercises have also been undertaken by the Network of Centers (which produced a case study series exploring online intermediary liability frameworks and issues in Brazil, the European Union (EU), India, South Korea, the United States (US), Thailand, Turkey, and Vietnam),⁵ WIPO,⁶ and other academic initiatives.⁷

Institutional efforts at the international level are on the rise. Recently, the Global Multistakeholder Meeting on the Future of Internet Governance (NETmundial) worked towards the establishment of global provisions on intermediary liability within a charter of Internet governance principles.⁸ The final text of the NETmundial Statement included the principle that,

⁴ See OSJI-CIS Workshop on Intermediary Liability, Fostering Greater Collaboration between Service Providers and Internet Freedom Groups in the Public Interest, Stanford University, Stanford, CA, December 15, 2014.

⁵ See Berkman Center for Internet and Society, Liability of Online Intermediaries: New Study by the Global Network of Internet and Society Centers, February 18, 2015, <https://cyber.law.harvard.edu/node/98684>; Urs Gasser and Wolfgang Schulz, Governance of Online Intermediaries: Observations from a Series of National Case Studies (Berkman Center Research Publication No. 2015-5, 2015), <http://ssrn.com/abstract=2566364>.

⁶ See Daniel Seng, Comparative Analysis of National Approaches to the Liability of the Internet Intermediaries, VII. Japan (WIPO Study), available at http://www.wipo.int/export/sites/www/copyright/en/doc/liability_of_internet_intermediaries.pdf; Ignacio Garrote Fernández-Díez, Comparative Analysis on National Approaches to the Liability of Internet Intermediaries for Infringement of Copyright and Related Rights (WIPO study), available at http://www.wipo.int/export/sites/www/copyright/en/doc/liability_of_internet_intermediaries_garrote.pdf.

⁷ See, e.g., for other mapping and comparative exercises, INTELLECTUAL PROPERTY LIABILITY OF CONSUMERS, FACILITATORS, AND INTERMEDIARIES (Christopher Heath and Anselm Kamperman Sanders (eds.), Wolters Kluwer 2012).

⁸ See NETmundial Multistakeholder Statement, São Paulo, Brazil, April 24, 2014, available at <http://netmundial.br/wp-content/uploads/2014/04/NETmundial-Multistakeholder-Document.pdf>; see also Nicolo Zingales, *The Brazilian Approach to Internet Intermediary Liability: Blueprint for a Global Regime*, 4(4) INTERNET POLICY REV. (December 28, 2015), <http://policyreview.info/articles/analysis/brazilian-approach-internet-intermediary-liability-blueprint-global-regime> (noting that this formulation is problematic for civil society because of the focus on economic aspects – and rightholders' interests – rather than on protection of human rights); Marilia Maciel, Nicolo Zingales, and Daniel Fink, The Global Multistakeholder Meeting on the Future of Internet Governance (NETmundial),

*“Intermediary liability limitations should be implemented in a way that respects and promotes economic growth, innovation, creativity and free flow of information. In this regard, cooperation among all stakeholders should be encouraged to address and deter illegal activity, consistent with fair process.”*⁹

A few months earlier, the Organization for Economic Co-operation and Development (OECD) issued recommendations on Principles for Internet Policy Making stating that, in developing or revising their policies for the Internet Economy, the State members should consider the limitation of intermediary liability as a high level principle.¹⁰ Moreover, the 2011 Joint Declaration of the three Special Rapporteurs for Freedom of Expression contains statements that would suggest an ongoing search for a global regime for intermediary liability.¹¹ After reinforcing the mere conduit principle, the declaration suggested liability limitations for other intermediaries, including hosting providers, search engines, and those enabling financial transactions.¹² The Representative on Freedom of the Media of the Organization for Security and Cooperation in Europe (OSCE) issued a *Communiqué on Open Journalism*, which is aimed at advising the organization’s 57 member States on best practices with regards to digital rights and intermediaries.¹³ In particular, the Communiqué laid out a set of recommendations in recognition of the fact that *“intermediaries have become one of the main platforms*

case study by the Center for Technology and Society of the Getulio Vargas Foundation (2014), https://publixphere.net/i/noc/page/IG_Case_Study_NETMundial.

⁹ *Id.*, at 5.

¹⁰ See Organization for Economic Co-operation and Development (OECD), Recommendation of the Council on Principles for Internet Policy Making, C (2011) 154 (November 13, 2011), available at <http://acts.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=270>; see also OECD, The Economic and Social Role of Internet Intermediaries (April 2010), available at <http://www.oecd.org/internet/ieconomy/44949023.pdf> [hereinafter, “OECD, Internet Intermediaries”].

¹¹ See The United Nations (UN) Special Rapporteur on Freedom of Opinion and Expression, the Organization for Security and Co-operation in Europe (OSCE) Representative on Freedom of the Media, the Organization of American States (OAS) Special Rapporteur on Freedom of Expression and the African Commission on Human and Peoples’ Rights (ACHPR) Special Rapporteur on Freedom of Expression and Access to Information, International Mechanism for Promoting Freedom of Expression, Joint Declaration on Freedom of Expression and the Internet (June 2011), available at <http://www.osce.org/fom/78309?download=true> [hereinafter, “Joint Declaration of the Three Special Rapporteurs for Freedom of Expression”].

¹² *Id.*, at Preamble and 2.b.

¹³ Organization for Security and Cooperation in Europe (OSCE) The Representative on Freedom of the Media, Dunja Mijatović, 3rd Communiqué on Open Journalism, Vienna, January 29, 2016, <http://www.osce.org/fom/219391?download=true> [hereinafter, “OSCE, Communiqué on Open Journalism”].

facilitating access to media content as well as enhancing the interactive and participatory nature of Open Journalism."¹⁴

Efforts to produce guidelines and general principles for intermediaries emerged in the civil society too. In particular, the Manila Principles on Intermediary Liability set out safeguards for content restriction on the Internet with the aim of protecting users' rights, including "*freedom of expression, freedom of association and the right to privacy.*"¹⁵ A set of general principles is accompanied by sub-principles and a background paper qualifying some of the terminology and statements included in the principles.¹⁶ The six main principles are summarized below:

"(1) Intermediaries should be shielded from liability for third-party content. (2) Content must not be required to be restricted without an order by a judicial authority. (3) Requests for restrictions of content must be clear, be unambiguous, and follow due process. (4) Laws and content restriction orders and practices must comply with the tests of necessity and proportionality. (5) Laws and content restriction policies and practices must respect due process. (6) Transparency and accountability must be built into laws and content restriction policies and practices."¹⁷

The Manila Principles have been well received so far by the international community. For example, institutional initiatives such as the OCSE Communiqué on Intermediaries mentioned before made full reference to the Manila Principles in its draft recommendations.¹⁸

Other projects have developed best practices that might be implemented by intermediaries in their Terms of Service with special emphasis on protecting fundamental rights.¹⁹ For example, under the aegis of the Internet Governance Forum, the Dynamic Coalition for Platform Responsibility

¹⁴ *Id.*

¹⁵ See Manila Principles on Intermediary Liability, Intro, <https://www.manilaprinciples.org/>.

¹⁶ See Manila Principles on Intermediary Liability Background Paper (May 30, 2015), https://www.eff.org/files/2015/07/08/manila_principles_background_paper.pdf; Jyoti Panday, Carlos Lara, Kyun Park, and Kelly Kim, Jurisdictional Analysis: Comparative Study Of Intermediary Liability Regimes Chile, Canada, India, South Korea, UK and USA in support of the Manila Principles on Intermediary Liability (July 1, 2015), https://www.eff.org/files/2015/07/08/manila_principles_jurisdictional_analysis.pdf.

¹⁷ *Id.*

¹⁸ See OCSE, Communiqué on Open Journalism, *supra* note 13, at 2.

¹⁹ See, e.g., JAMILA VENTURINI, LUIZA LOUZADA, AND MARILIA MACIEL, TERMS OF SERVICE AND HUMAN RIGHTS: AN ANALYSIS OF ONLINE PLATFORM CONTRACTS (Editora Revan 2016).

aims to delineate a set of model contractual provisions.²⁰ These provisions should be compliant with the UN “*Protect, Respect and Remedy*” Framework as endorsed by the UN Human Rights Council together with the UN Guiding Principles on Business and Human Rights.²¹ Appropriate digital labels should signal the inclusion of these model contractual provisions in the Terms of Service of selected platform providers to “*help Internet users to easily identify the platform-providers who are committed to securing the respect of human rights in a responsible manner.*”²² Further, the Global Network Initiative (GNI) put together a multistakeholder group of companies, civil society organizations, investors and academics to create a global framework to protect and advance freedom of expression and privacy in information and communication technologies. The GNI’s participants—such as Facebook, Google, LinkedIn, Microsoft and Yahoo—committed to a set of core documents, including the GNI Principles, Implementations Guidelines and Accountability, Policy and Learning Framework.²³

Ranking Digital Rights is an additional initiative that promotes best practices and transparency among online intermediaries.²⁴ This project ranks Internet and telecommunication companies according to their virtuous behaviour in respecting users’ rights, including privacy and freedom of speech. In November 2015, the project’s report ranked 16 companies, in different countries, on 30 different measures.²⁵ Companies scored between 65 and 13 percent.²⁶ Most companies received a failing grade for their public commitments and disclosed policies affecting users’ freedom of expression and privacy.²⁷

²⁰ See Dynamic Coalition on Platform Responsibility: A Structural Element of the United Nations Internet Governance Forum, <http://www.intgovforum.org/cms/2008-igf-hyderabad/event-reports/74-dynamic-coalitions/1625-dynamic-coalition-on-platform-responsibility-dc-pr> [hereinafter, “Dynamic Coalition on Platform Responsibility”].

²¹ See United Nations, Human Rights, Office of the High Commissioner, Guiding Principles on Business Human Rights: Implementing the United Nations “Protect, Respect, and Remedy” Framework (2011), available at http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf [hereinafter, “UN GPBHRs”].

²² See Dynamic Coalition on Platform Responsibility, *supra* note 20.

²³ See Global Network Initiatives, Principles, <https://globalnetworkinitiative.org/principles/index.php>; Global Network Initiatives, Implementation Guidelines, <https://globalnetworkinitiative.org/implementationguidelines/index.php>; Global Network Initiatives, Accountability, Policy, and Learning Framework, <https://globalnetworkinitiative.org/content/accountability-policy-and-learning-framework>.

²⁴ See Ranking Digital Rights, <https://rankingdigitalrights.org>; see also REBECCA MACKINNON, CONSENT OF THE NETWORKED: THE WORLDWIDE STRUGGLE FOR INTERNET FREEDOM (Basic Books 2012).

²⁵ See Ranking Digital Rights, Corporate Accountability Index, <https://rankingdigitalrights.org/index2015/>.

²⁶ *Id.*

²⁷ *Id.*

Several initiatives have been looking into notice and takedown procedures in order to highlight possible chilling effects and propose solutions. Lumen—formerly “*Chilling Effects*”—archives takedown notices to promote transparency and to facilitate research about the takedown ecology.²⁸ The Takedown Project is a collaborative effort housed at UC-Berkeley School of Law and the American Assembly to study notice and takedown procedures.²⁹ The Takedown Project launched the Notice Coding Engine to look at the impact of automated sending and receiving process of notice and takedown.³⁰ Apart from this, the Internet and Jurisdiction project has been developing a due process framework to deal more efficiently with transnational notice and takedown requests, seizures, MLAT and law enforcement cooperation requests.³¹ This framework will be based on the creation of a legal reference database to support the assessment of takedown requests.³² Finally, apart from establishing good practice standards for notices, the Manila Principles initiatives made available a template notice of content restriction as a mock-up web form that can be adopted by intermediaries.³³

IV. FROM INTERMEDIARY LIABILITY TO RESPONSABILITY

Intermediary liability has become one of the most critical Internet governance issues of our time. In particular, modern theory—and policy—still struggles with defining an adequate framework for the liability and responsibility of

²⁸ See Lumen, www.lumendatabase.org; see also Online Censorship, <https://onlinecensorship.org> (allowing users to document their experience with Terms of Service based removals of content).

²⁹ See The Takedown Project, <http://takedownproject.org>; see also Brianna L. Schofield and Jennifer M. Urban, Takedown and Today’s Academic Digital Library, UC Berkeley Public Law Research Paper No. 2694731, 2015, available at <http://ssrn.com/abstract=2694731> (examining academic libraries’ interaction with DMCA and non-DMCA takedown requests); Annemarie Bridy, *Copyright’s Digital Deputies: DMCA-Plus Enforcement by Internet Intermediaries*, in RESEARCH HANDBOOK ON ELECTRONIC COMMERCE LAW (John A. Rothchild (ed.), Edward Elgar 2016), available at <http://ssrn.com/abstract=2628827> (surveying cooperative enforcement measures beyond what the DMCA requires by both intermediaries that are eligible for Section 512 safe harbours and those that are not liable under secondary liability doctrines); Daniel Seng, *The State of the Discordant Union: An Empirical Analysis of DMCA Takedown Notices*, 18 VIRGINIA J. L. & TECH. 369 (2014), available at <http://ssrn.com/abstract=2411915> (charting a 711,887 percent increase in DMCA notices received by Google over the time of the study after analyzing half a million takedown notices and more than 50 million takedown requests).

³⁰ The Takedown Project, Projects, Notice Coding Engine, <http://takedownproject.org/projects>.

³¹ See Bertrand de La Chapelle and Paul Fehlinger, Towards a Multi-Stakeholder Framework for Transnational Due Process (Internet & Jurisdiction White Paper, 2014), <http://www.internetjurisdiction.net/uploads/pdfs/Papers/Internet-Jurisdiction-White-Paper-2014.pdf>.

³² *Id.*

³³ Template Notice Pre-Zero Draft Revised, <https://goo.gl/NIVXEF>.

OSPs for user-generated content. Does OSP's role differ from that of publishers, mass-media, and gate-keepers? Should innocent third parties be enlisted in online enforcement? If so, what are the jurisdictional boundaries of their obligations? These are some tough questions that have received miscellaneous answers so far even within a single jurisdiction. The theoretical—and market—background against which the intermediary liability debate developed has changed considerably since the first appearance of online intermediaries almost two decades ago. These changes reflected—or will, most likely, soon reflect—in changing policy approaches.

In the mid-nineties, after initial brief hesitation,³⁴ legislators decided that online intermediaries, both access and hosting providers, had to enjoy exemptions from liability for wrongful activities committed by users through their services. The safe harbors were first introduced by the United States. In 1996, the Communications Decency Act exempted intermediaries from liability for the speech they carried.³⁵ In 1998, the Digital Millennium Copyright Act introduced specific intermediary liability safe harbours for copyright infringement under more stringent requirements.³⁶ Shortly thereafter, the eCommerce Directive imposed an obligation on the member States to enact similar legal arrangements to protect a range of online intermediaries from liability.³⁷ Other jurisdictions have followed suit in more recent times.³⁸ In most cases, safe harbour legislations provide mere conduit, cach-

³⁴ See BRUCE A. LEHMAN, *INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 114-124* (DIANE Publishing, 1995), available at <https://www.uspto.gov/web/offices/com/doc/ipnii/ipnii.pdf> (noting “the best policy is to hold the service provider liable [. . .] Service providers reap rewards for infringing activity. It is difficult to argue that they should not bear the responsibilities.”); see also James Boyle, *Intellectual Property: Two Past and One Future*, Information Influx International Conference, Amsterdam (July 2-4, 2014), https://www.youtube.com/watch?v=gFDA-G_VqHo.

³⁵ See Communications Decency Act, 1996, 47 U.S.C. § 230, <https://cyberlaw.stanford.edu/page/wilmap-united-states>; see also David S. Ardia, *Free Speech Savior or Shield for Scoundrels: An Empirical Study of Intermediary Immunity under Section 230 of the Communications Decency Act*, 43 LOYOLA L. REV. 373 (2010).

³⁶ See The Digital Millennium Copyright Act, 1998, 17 U.S.C. § 512, <https://cyberlaw.stanford.edu/page/wilmap-united-states> [hereinafter, “DMCA”].

³⁷ See Directive 2000/31/EC of the European Parliament and of the Council of June 8, 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market, 2000 O.J. (L 178) 1-16 [hereinafter, “eCommerce Directive”], available at <http://cyberlaw.stanford.edu/page/wilmap-european-union>.

³⁸ See, e.g., Copyright Legislation Amendment Act, 2004 (Cth), No. 154, Sch. 1 (Australia), <https://cyberlaw.stanford.edu/page/wilmap-australia>; Copyright Modernization Act, SC 2012, c20, § 31.1 (Canada), <http://cyberlaw.stanford.edu/page/wilmap-canada>; Judicial Interpretation No. 20 [2012] of the Supreme People's Court on Several Issues concerning the Application of Law in Hearing Civil Dispute Cases Involving Infringement of the Right of Dissemination on Information Networks, December 17, 2012 (China), <http://cyberlaw.stanford.edu/page/wilmap-china>; Federal Law No. 149-FZ, on Information, Information Technologies and Protection of Information, July 27, 2006 (Russia) and Federal Law No.

ing, and hosting exemptions for intermediaries, together with the exclusion of a general obligation on online providers to monitor the information which they transmit or store, or to actively seek facts or circumstances indicating illegal activity.³⁹

Pressurizing innocent third parties that may enable or encourage violations by others is a well-established strategy to curb infringement. In fact, forcing third parties to act affirmatively to curb infringement would increase the level of compliance to the law. Intermediaries' secondary liability has been based on different theories ranging from moral to utilitarian approaches. A moral approach would argue that encouraging infringement is widely seen as immoral.⁴⁰ The second approach is associated with the welfare theory and, more broadly, with a utilitarian approach to law in general. This approach was pioneered thirty years ago by Reiner Kraakman's seminal article, which set the foundations of the so-called "gatekeeper theory" that will be influential in shaping early online intermediaries' policies.⁴¹ Welfare theory approaches have been dominant in intermediary liability policy until recently. They have been based on the notion that liability should be imposed only as a result of a cost-benefit analysis, which is especially relevant in case of dual-use technologies that can be deployed both to infringe others' rights and facilitate social beneficial uses.⁴²

Apparently, however, there is an ongoing revival of moral approaches to intermediary liability. Legal theory is increasingly shifting the discourse from liability to enhanced 'responsibilities' for intermediaries under the assumption that OSPs' role is unprecedented due to their capacity to influence the

187-FZ of July 2, 2013 amending Russian Civil Code, § 1253.1, <http://cyberlaw.stanford.edu/page/wilmap-russia>.

³⁹ See, e.g., eCommerce Directive, *supra* note 37, at Art. 12-15; DMCA, *supra* note 36, at § 512(c)(1)(A-C).

⁴⁰ See Richard A. Spinello, *Intellectual Property: Legal and Moral Challenges of Online File Sharing*, in ETHICS AND EMERGING TECHNOLOGIES 300 (Ronald L. Sandler (ed.), Palgrave Macmillan 2013); Mohsen Manesh, *Immorality of Theft, the Amorality of Infringement*, STAN. TECH. L. REV. 5 (2006), available at <https://journals.law.stanford.edu/sites/default/files/stanford-technology-law-review-stlr/online/manesh-immorality.pdf>; Richard A. Spinello, *Secondary Liability in the Post Napster Era: Ethical Observations on MGM v. Grokster*, 3(3) J. OF INFORMATION, COMMUNICATION AND ETHICS IN SOCIETY 121 (2005); Geraldine Szott Moohr, *The Crime of Copyright Infringement: An Inquiry Based on Morality, Harm, and Criminal Theory*, 83 B.U. L. REV. 731 (2003).

⁴¹ Reiner H. Kraakman, *Gatekeepers: The Anatomy of a Third-Party Enforcement Strategy*, 2(1) JOURNAL OF LAW, ECONOMICS AND ORGANIZATION 53 (1986); see also C. Metoyer-Duran, *Information Gatekeepers*, 28 ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY (ARIST) 111 (1993).

⁴² See William Fisher, CopyrightX: Lecture 11.1, Supplements to Copyright: Secondary Liability (February 18, 2014), at 7:50, https://www.youtube.com/watch?v=7YGg-VfwK_Y (applying Kraakman's framework to copyright infringement).

informational environment and the users' interactions within it. This move from intermediary liability to platform responsibility has been occurring at both theoretical and practical level, with special focus on intermediaries' corporate social responsibilities and their role in implementing and fostering human rights.⁴³ As Martin Husovec argued, the EU law, for example, increasingly forces Internet intermediaries to work for the right holders by making them accountable even if they are not tortiously liable for actions of their users.⁴⁴

However, there are also counter-posing forces at work in the present Internet governance struggle. A centripetal move towards digital constitutionalism for Internet governance alleviates the effects of the centrifugal platform responsibility discourse. Efforts to draft an "*Internet Bill of Rights*" can be traced at least as far back as the mid-1990s.⁴⁵ Two full decades later, aspirational principles have begun to crystallize into law. Gill, Redeker and Gasser have described more than thirty initiatives spanning from 1999 to 2015 that can be labelled under the umbrella of "*digital constitutionalism*."⁴⁶ These initiatives have great differences—and range from advocacy statements to official positions of intergovernmental organizations to proposed legislation—but belong to a broader proto-constitutional discourse seeking to advance a relatively comprehensive set of rights, principles, and governance norms for the Internet.⁴⁷

⁴³ See EMILY B. LAIDLAW, REGULATING SPEECH IN CYBERSPACE: GATEKEEPERS, HUMAN RIGHTS AND CORPORATE RESPONSIBILITY (CUP 2015); Mariarosaria Taddeo and Luciano Floridi, *The Debate on the Moral Responsibilities of Online Service Providers*, 22(6) SCI. & ENG. ETHICS 1575 (published online November 27, 2015), available at <http://link.springer.com/article/10.1007%2Fs11948-015-9734-1>; Marcelo Thompson, *Beyond Gatekeeping: The Normative Responsibility of Internet Intermediaries*, 18(4) VAND. J. ENT. & TECH. L. (forthcoming 2016); Sophie Stalla-Bourdillon, *Internet Intermediaries as Responsible Actors? Why It Is Time to Rethink the e-Commerce Directive as Well...*, in THE RESPONSIBILITIES OF ONLINE SERVICE PROVIDERS (L. Floridi and M. Taddeo (eds.), Springer 2016), https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2808031; see also United Nations Human Rights Council, The Promotion, Protection and Enjoyment of Human Rights on the Internet, A/HRC/RES/26/13 (June 20, 2014), available at http://hrlibrary.umn.edu/hrcouncil_res26-13.pdf (addressing *inter alia* a legally binding instrument on corporations' responsibility to ensure human rights).

⁴⁴ See Martin Husovec, *Accountable, Not Liable: Injunctions Against Intermediaries*, TILEC Discussion Paper No. 2016-012 (May 2, 2016), available at <http://ssrn.com/abstract=2773768>; Martin Husovec, *Accountable, Not Liable: How Injunctions Against Intermediaries Change Intermediary Liability In Europe*, Stanford Law School, April 13, 2016, <http://www.husovec.eu/2016/05/accountable-not-liable-video-new-paper.html>; *Accountable Not Liable: How Far Should Mandatory Cooperation of Intermediaries Go?*, <http://accountablenotliable.org>.

⁴⁵ See Lex Gill, Dennis Redeker, and Urs Gasser, *Towards Digital Constitutionalism? Mapping Attempts to Craft an Internet Bill of Rights* (Berkman Center Research Publication No. 2015-15, November 9, 2015), available at <http://ssrn.com/abstract=2687120>.

⁴⁶ See Gill, Redeker, and Gasser, *supra* note 45, at 1.

⁴⁷ See Gill, Redeker, and Gasser, *supra* note 45, at 1.

V. GLOBAL INTERMEDIARY LIABILITY TRENDS

Mapping online intermediary liability worldwide entails the review of a wide-ranging topic, stretching into many different areas of law and domain-specific solutions. The WILMap has become a privileged venue to observe emerging trends in Internet jurisdiction and innovation regulation, enforcement strategies dealing with intermediate liability for copyright, trademark, and privacy (RTBF) infringement, and Internet platforms' obligations and liabilities for defamation, hate and dangerous speech. The data set collected in the WILMap has made it possible to identify recent trends in intermediary liability policy.

Since the enactment of the first safe harbours and liability exemptions for online intermediaries, market conditions have radically changed. Originally, intermediary liability exemptions were introduced to promote an emerging Internet market. Do safe harbours for online intermediaries still serve innovation? Should they be limited or expanded? Such critical questions—often tainted by protectionist concerns—define the present intermediary liability conundrum. Apparently, safe harbours still hold importance, although secondary liability for illegal content online is on the rise.

Besides a consistent enforcement of online intermediaries' safe harbors in the United States,⁴⁸ several emerging economies have been bringing their legal system up to digital speed. Recently, the Brazilian Marco Civil da Internet—or Internet Bill of Rights—introduced a civil liability exemption for Internet access providers and other Internet providers.⁴⁹ In the case of hosting providers, Article 19 provides that, “*in order to ensure freedom of expression and to prevent censorship, an Internet application provider shall only be subject to civil liability for damages caused by virtue of content generated by third parties if, after specific court order, it does not take action [. . .] to make the infringing content unavailable.*”⁵⁰ This broad civil—and

⁴⁸ However, the United States Copyright Office is undertaking a public study to evaluate the impact and effectiveness of the safe harbour provisions. In particular, notice-and-stay-down arrangements—rather than takedown—are under review in the United States as well as elsewhere. See United States Copyright Office, Section 512 Study, <http://copyright.gov/policy/section512>; see also BMG Rights Management (US) LLC *et al* v. Cox Enterprises, Inc. *et al*, 1:14-cv-1611 (August 9, 2016) (confirming a jury verdict of December 2015 holding that Cox—the broadband provider—forfeited the immunity of the Digital Millennium Copyright Act, 1998 by not blocking music piracy by its subscribers after BMG had alerted Cox to the wrongdoing of individual infringers identified by Rightscorp, a provider of litigation services against copyright infringers).

⁴⁹ See Marco Civil da Federal Law no. 12.965, April 23, 2014, Art. 18, available at <https://cyberlaw.stanford.edu/page/wilmap-brazil> (“the Internet connection [access] provider shall not be subject to civil liability for content generated by third party”).

⁵⁰ *Id.*, at Art. 19.

not criminal—liability exemption, however, does not apply to copyright infringement.⁵¹ Other African, Asian and South American countries have also been discussing the introduction of a safe harbour regime for quite some time now. The Hong Kong government, for example, introduced a copyright bill establishing a statutory safe harbour for OSPs for copyright infringement, provided that the OSPs meet certain prescribed conditions, including the taking of reasonable steps to limit or stop copyright infringement upon being notified.⁵²

Nonetheless, safe harbours' recalibration towards greater secondary liability for online intermediaries does characterize the recent international policy debate. Increasing number of cracks are appearing in safe harbour arrangements for online intermediaries. Increased intermediary accountability has become a global trend that has been emerging in Europe, Asia, South America, Africa and Australia.

As anticipated, voluntary and private censorship of allegedly illegal online content—shifting the discourse from intermediary liability to intermediary responsibility or accountability—is a core policy trend. Voluntary measures—which the European Commission would like to promote among platforms—do shake the EU intermediary liability system. Hosting providers—especially platforms—would be called to actively and swiftly remove illegal materials, instead of reacting to complaints. The OP&DSM Communication puts forward the idea that 'the responsibility of online platforms is a key and cross-cutting issue.'⁵³ In other words, intermediary liability expansion—and limitation of safe harbors—will occur by imposing an obligation on online platforms to behave responsibly by addressing specific problems. The European Commission aligns its strategy for online platforms to a globalized, ongoing move towards privatization of law enforcement

⁵¹ *Id.*, at Art. 19 (2).

⁵² See Copyright Amendment Bill, 2014, C2957, Clause 50, available at <http://www.gld.gov.hk/egazette/pdf/20141824/es32014182421.pdf>; see also Bolin Zhang, Hong Kong Government Introduces Copyright Bill Providing a "Safe Harbour" for OSPs for Copyright Infringement, CIS Blog, June 17, 2014, <https://cyberlaw.stanford.edu/blog/2014/06/hong-kong-government-introduces-copyright-bill-providing-%E2%80%9Csafe-harbor%E2%80%9D-osps-copyright> (noting that the safe harbour will be underpinned by a Code of Practice which sets out practical guidelines and procedures for OSPs to follow upon notification of infringement such as "notice-and-notice" and "notice-and-takedown.").

⁵³ Communication from the Commission of the European Parliament, the Council, and the Economic and Social Committee, and the Committee of the Regions, Online Platforms and the Digital Single Market: Opportunities and Challenges for Europe, COM (2016) 288 Final, at 9 (May 25, 2016) [hereinafter, "OP&DMS Communication"] available at <https://ec.europa.eu/digital-single-market/en/news/communication-online-platforms-and-digital-single-market-opportunities-and-challenges-europe>.

online through algorithmic tools.⁵⁴ Coordinated EU-wide self-regulatory efforts by online platforms should immediately be directed to fight incitement to terrorism and to prevent cyber-bullying.⁵⁵ In fact, as an immediate result of this new policy trend, the European Commission recently agreed with all major online hosting providers—including Facebook, Twitter, YouTube and Microsoft—on a code of conduct that includes a series of commitments to combat the spread of illegal hate speech online in Europe.⁵⁶ In this context, tech companies plan to create a shared database of unique digital fingerprints—known as “ashes”—that can identify images and videos promoting terrorism.⁵⁷ Some EU member States, such as Germany, may even bring in a law to impose fines of up to €500,000 on a platform failing to take down illegal content within 24 hours.⁵⁸

On the intellectual property enforcement side, payment blockades—notice-and-termination agreement between major right holders and online payment processors—and “voluntary best practices agreements” for copyright and trademark enforcement have been applied widely, especially in the United States.⁵⁹ Payment processors like MasterCard and Visa have been pressured to act as intellectual property enforcers, extending the reach of intellectual property law to websites operating from servers and physical facilities located abroad.⁶⁰ In the *Communication Towards a Modern, More European Copyright Framework*, the European Commission would like to

⁵⁴ See Joe McNamee, ‘Leaked EU Communication – Part 1: Privatized Censorship and Surveillance’ (*EDRi*, April 27, 2016), <https://edri.org/leaked-eu-communication-privatised-censorship-and-surveillance>.

⁵⁵ See OP&DMS Communication, *supra* note 53, at 10.

⁵⁶ See Commission, European Commission and IT Companies Announce Code of Conduct on Illegal Online Hate Speech, Press Release (May 31, 2016), http://europa.eu/rapid/press-release_IP-16-1937_en.htm; European Commission, Justice and Consumers, Fighting Illegal Online Hate Speech: First Assessment of the New Code of Conduct, Press Release (December 12, 2016), http://ec.europa.eu/newsroom/just/item-detail.cfm?item_id=50840 (urging platforms to do more to implement the Code of Conduct).

⁵⁷ Olivia Solon, ‘Facebook, Twitter, Google and Microsoft Team up to Tackle Extremist Content’ (*The Guardian*, December 6, 2016), <https://www.theguardian.com/technology/2016/dec/05/facebook-twitter-google-microsoft-terrorist-extremist-content>.

⁵⁸ Cara McGoogan, ‘German Politician Threatens to Fine Facebook €500,000 Every Time It Shows Fake News’ (*The Telegraph*, December 19, 2016), <http://www.telegraph.co.uk/technology/2016/12/19/german-politician-threatens-fine-facebook-500000-every-time>.

⁵⁹ See Annemarie Bridy, *Internet Payment Blockades*, 67 FLORIDA L. REV. 1523 (2015); see also Derek E. Bambauer, *Against Jawboning*, 100 MINNESOTA L. REV. 51 (2015) (discussing federal and state governments’ increasing regulation of online content through informal enforcement measures, such as threats, at the edge of or outside their authority).

⁶⁰ See Bridy, *supra* note 59, at 1523; see also *Backpage v. Dart* (denying an injunction against Sheriff Dart for his informal efforts to coerce credit card companies into closing their accounts with Backpage).

endorse similar strategies by deploying a ‘follow-the-money’ approach.⁶¹ As the Commission noted, this strategy ‘can deprive those engaging in commercial infringements of the revenue streams (for example, from consumer payments and advertising) emanating from their illegal activities, and therefore, act as a deterrent’.⁶² According to the Commission, ‘follow-the-money’ mechanism should be based on a self-regulatory approach through the implementation of Code of Conducts that might be later backed up by legislation if necessary.

As part of its Digital Single Market Strategy, the European Commission has been seriously considering for some time now to narrow the eCommerce Directive horizontal liability limitations for Internet intermediaries⁶³ and putting in place a “*fit for purpose*”—or vertical—regulatory environment for platforms and intermediaries.⁶⁴ It is planning to introduce enhanced obligations on websites and other Internet intermediaries for dealing with unlawful third-party content.⁶⁵ In particular, the Commission is discussing what regulations should apply to a subset of the intermediaries deemed as “*online platforms*” and “*whether to require intermediaries to exercise greater responsibility and due diligence in the way they manage their networks and systems—a duty of care*”⁶⁶ with the aim to achieve a fairer allocation of

⁶¹ See Communication from the Commission of the European Parliament, the Council, and the Economic and Social Committee, and the Committee of the Regions, Towards a Modern More European Copyright Framework, COM (2015) 260 Final, at 10-11 (December 9, 2015).

⁶² *Ibid.*

⁶³ See Patrick Van Eecke, *Online Service Providers and Liability: A Plea for a Balanced Approach*, 48(5) COMMON MARKET L. REV. 1455, 1463 (2011) (noting that “Section 4 [of the eCommerce Directive] introduces a horizontal special liability regime for the three types of service providers covered by it. Provided they meet the criteria laid down in Section 4, the service providers will be exempted from contractual liability, administrative liability, tortious/extra-contractual liability, penal liability, civil liability or any other type of liability, for all types of activities initiated by third parties, including copyright and trademark infringements, defamation, misleading advertising, unfair commercial practices, unfair competition, publications of illegal content, etc.”).

⁶⁴ See European Commission, Communication, A Digital Single Market Strategy for Europe, COM (2015) 192 Final, May 6, 2015, at § 3.3, available at http://ec.europa.eu/priorities/digital-single-market/docs/dsm-communication_en.pdf [hereinafter, “Digital Single Market Strategy”]; see also for a general overview of the intermediary liability framework in Europe, CHRISTINA ANGELOPOULOS, EUROPEAN INTERMEDIARY LIABILITY IN COPYRIGHT: A TORT-BASED ANALYSIS (Kluwer Law Int’l 2016).

⁶⁵ Digital Single Market Strategy, at 3.3.2 (noting that “[r]ecent events have added to the public debate on whether to enhance the overall level of protection from illegal material on the Internet.”).

⁶⁶ *Id.*; see also eCommerce Directive, *supra* note 37, at 48, (previously establishing that “[t]his Directive does not affect the possibility for member States of requiring service providers, who host information provided by recipients of their service, to *apply duties of care*, which can reasonably be expected from them and which are specified by national law, in order to detect and prevent certain types of illegal activities”) (emphasis added).

value generated by the distribution of copyright-protected content by online platforms.⁶⁷ The Commission presented this platform-sensitive update of the EU copyright policy in a proposal for a Directive on Copyright in the Digital Single Market,⁶⁸ which is part of a larger package aiming at modernizing the EU copyright rules and achieving a fully functioning Digital Single Market.⁶⁹ A groundbreaking provision aiming at closing the “*value gap*”—and closely affecting online intermediaries—is the introduction of an ancillary right for the reproduction of press publications in respect of digital uses and ensuring their availability for the public.⁷⁰ The proposed reform also includes a second provision that would broadly impact platform operations in order to close the so-called “*value gap*”. It requires intermediaries “*that store and provide access to large amounts of works [. . .] uploaded by their users*” to take appropriate and proportionate “*measures to ensure the functioning of agreements concluded with rightholders for the use of their works*” or “*to prevent the availability on their services of [such] works,*” including through “*the use of effective content identification technologies.*”⁷¹

Meanwhile, some member States have already taken the regulatory path or are in the process of doing so. The German coalition agreement included the prospect of expanded hosting provider liability for online copyright infringement.⁷² In 2013, Germany amended its Copyright Law by providing exclusive neighbouring rights to press publishers. The new right covers ensuring availability of any publications and their fragments, beyond individual words and the smallest text excerpt, for commercial purpose.⁷³ Further, a recent Spanish copyright reform expanded intermediary liability by introducing, *inter alia*, doctrines of secondary liability—inducement, contributory and vicarious liability—in the Spanish legal system.⁷⁴ In addition—following the footsteps of the German amendment—the Spanish

⁶⁷ See OP&DMS Communication, *supra* note 53, at 8.

⁶⁸ Proposal for a Directive of the European Parliament and of the Council on Copyright in the Digital Single Market, COM (2016) 593 Final (September 14, 2016), Art. 13 [hereinafter, “DSM Directive Proposal”].

⁶⁹ See European Commission, Digital Single Market, Modernization of the EU Copyright Rules, <http://bit.ly/DSMcopyright16>.

⁷⁰ See DSM Directive Proposal, *supra* note 68, at Art. 13, at 11(1).

⁷¹ See DSM Directive Proposal, *supra* note 68, at Art. 13(1).

⁷² See Deutschlands Zukunft Gestalten – Koalitionsvertrag Zwischen CDU, CSU und SPD, 18 Legislaturperiode (December 17, 2013), at 133-134, *available at* <https://www.cdu.de/sites/default/files/media/dokumente/koalitionsvertrag.pdf> [hereinafter, “German Coalition Agreement”].

⁷³ See Articles 87f-87h of the German Law on Authors’ and Neighbouring Rights.

⁷⁴ See Real Decreto Legislativo (RDL) 1/1996, de 12 de abril, por el que se aprueba el texto refundido de la Ley de Propiedad Intelectual, regularizando, aclarando y armonizando las disposiciones legales vigentes sobre la materia, BOE-A-1996-8930, Art. 138, as amended by Ley 21/2014, de 4 de noviembre, BOE-A-2014-11404, *available at* <https://www.boe.es/buscar/act.php?id=BOE-A-1996-8930&tn=1&p=20141105 &vd=#a32>.

reform created a highly controversial compulsory levy for news aggregators.⁷⁵ Also known as “*Google tax*,” the Spanish reform led Google to terminate its Google News service in Spain.

The recent EU reform proposal would force hosting providers to develop and deploy filtering systems, therefore, *de facto* monitoring their networks.⁷⁶ This proposal follows in the footsteps of a well-established path in recent intermediary liability policy: the demise of the principle of “*no monitoring obligations*”. In the same vein, recent case law has imposed proactive monitor obligations on intermediaries for copyright infringement—such as Allostreaming in France, Dafa in Brazil, RapidShare in Germany, or Baidu in China.⁷⁷ In fact, the emerging enforcement of proactive monitoring obligations spans the entire spectrum of intermediary liability subject matters: other intellectual property,⁷⁸ privacy,⁷⁹ defamation, and hate/dangerous speech.⁸⁰ In this context, notable exceptions—such as the landmark Belen

⁷⁵ *Id.*, at Art 32(2).

⁷⁶ See DSM Directive Proposal, *supra* note 68, at Recital 38-39 and Art. 13(1).

⁷⁷ See APC et al v. Google, Microsoft, Yahoo!, Bouygues et al (TGI Paris, 2013) (France), available at <http://cyberlaw.stanford.edu/page/wilmap-france> (imposing an obligation on search engines to proactively expunge their search results from any link to the illegal movie streaming website Allostreaming and affiliated enterprises); Google Brazil v. Dafa, Special Appeal 1306157/SP (Superior Court of Justice, March 24, 2014) (Brazil), available at <https://cyberlaw.stanford.edu/page/wilmap-brazil> (imposing on YouTube a proactive monitoring obligation and a strict liability standard for infringement of Dafa’s copyright in a commercial dubbed by an anonymous user with comments tarnishing Dafa’s reputation); GEMA v. RapidShare I ZR 80/12 (Bundesgerichtshof, August 15, 2013) (Germany), available at <https://cyberlaw.stanford.edu/page/wilmap-germany> (finding that—under the TMA—host providers are already ineligible for the liability privilege if their business model is mainly based on copyright infringement); Zhong Qin Wen v. Baidu, 2014 Gao Min Zhong Zi 2045 (Beijing Higher People’s Court, 2014), available at <https://cyberlaw.stanford.edu/page/wilmap-china> (finding that it was reasonable for Baidu to exercise a duty to monitor and examine the legal status of an uploaded work once it has been viewed or downloaded more than a certain times).

⁷⁸ Rolex v. eBay (a.k.a. *Internetversteigerung II*), I ZR 35/04 (BGH, April 19, 2007) (Germany); Rolex v. Ricardo (a.k.a. *Internetversteigerung III*), Case I ZR 73/05, (BGH, April 30, 2008) (Germany) (in the so-called Internet Auction cases I-III, the German Federal Court of Justice—*Bundesgerichtshof*—repeatedly decided that notified trademark infringements oblige internet auction platforms such as eBay to investigate future offerings—manually or through software filters—in order to avoid trademark infringement).

⁷⁹ See Google v. Mosley (TGI Paris, November 6, 2013) (France), available at <http://cyberlaw.stanford.edu/page/wilmap-france>; Max Mosley v. Google Inc., 324 O 264/11 (Hamburg District Court, January 24, 2014), available at <http://openjur.de/u/674344.html>; Mosley v. Google, 2015 EWHC 59 (QB) (United Kingdom), available at <http://cyberlaw.stanford.edu/page/wilmap-united-kingdom> (courts in France, Germany, and the UK imposing proactive monitoring obligations on search engines, which were ordered to expunge the Internet from pictures infringing the privacy rights of Max Mosley—former president of Formula 1—caught on camera having sex with prostitutes wearing Nazi paraphernalia).

⁸⁰ Delfi AS v. Estonia No 64569/09 (ECtHR, June 16, 2015), available at <http://hudoc.echr.coe.int/eng?i=001-155105> (finding complaint with ECHR a decision imposing monitoring obligation on a news web portal for defamatory users’ comments).

case in Argentina—also highlight a fragmented international response to intermediary liability.⁸¹

Another relevant trend in intermediary liability is the blocking orders against innocent third parties. Blocking orders have become increasingly popular in Europe, especially to contrast online copyright—and recently also trademark—infringement.⁸² Their validity under EU law was recently confirmed by the European Court of Justice in the *Telekabel* decision.⁸³ Outside the EU, website blocking of copyright infringing sites has been authorised in countries including Argentina, India, Indonesia, Malaysia, Mexico, South Korea and Turkey.⁸⁴ In December 2014, Singapore effected an amendment to its Copyright Act to enable right holders to obtain website blocking orders,⁸⁵ and in 2015, Australia introduced “*website blocking*” provisions to its Copyright Act.⁸⁶ These measures have been enacted to curb intellectual property infringement online. However, negative effects of these measures on human rights have also been widely highlighted.⁸⁷

Regardless, blocking orders have been widely used in multiple jurisdictions—in particular by administrative authorities—in connection with

⁸¹ See *Rodriguez M. Belen v. Google*, R.522.XLIX. (Supreme Court, October 29, 2014 (Argentina), (rejecting filtering obligations to prevent infringing links from appearing in search engines’ results in the future in a case brought by a well-known public figure for violation of her copyright, honor and privacy), available at <https://cyberlaw.stanford.edu/page/wilmap-argentina>).

⁸² See Directive 2004/48/EC on the Enforcement of Intellectual Property Rights, Art. 11; Directive 2001/29/EC on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society, Art. 8(3); see also for an overview of European caselaw, Giancarlo Frosio, *Alalalai!... Rojadirecta is Up for Battle Again in Italy*, CIS Blog (September 6, 2013), <http://cyberlaw.stanford.edu/blog/2013/09/alalalai-rojadirecta-battle-again-italy>; Giancarlo Frosio, *UK High Court Orders ISPs to Block IP Address, Erroneously Takes Down Hundreds of Sites*, CIS Blog (September 22, 2013), <https://cyberlaw.stanford.edu/blog/2013/09/uk-high-court-orders-isps-block-ip-address-erroneously-takes-down-hundreds-sites>; Giancarlo Frosio, *Cartier v. BSKyB: UK Judge Orders ISPs to Block Websites Infringing Trademarks for the First Time in Europe*, CIS Blog (November 7, 2014), <http://cyberlaw.stanford.edu/blog/2014/11/cartier-vs-bskyb-uk-judge-orders-isps-block-websites-infringing-trademarks-first-time>.

⁸³ See *UPC Telekabel Wien GmbH v. Constantin Film Verleih GmbH*, 2014 Bus LR 541.

⁸⁴ See Council of Europe, *Filtering, Blocking and Take-down of Illegal Content of the Internet* (a study commissioned to the Swiss Institute of Comparative Law), <http://www.coe.int/en/web/freedom-expression/study-filtering-blocking-and-take-down-of-illegal-content-on-the-internet>.

⁸⁵ See Copyright (Amendment) Act, 2014, An Act to Amend the Copyright Act (Chapter 63 of the 2006 Revised Edition), available at <http://cyberlaw.stanford.edu/page/wilmap-singapore>.

⁸⁶ See Copyright Amendment (Online Infringement) Act, 2015 (Cth), available at <http://cyberlaw.stanford.edu/page/wilmap-australia>.

⁸⁷ See Christophe Geiger and Elena Izyumenko, *The Role of Human Rights in Copyright Enforcement Online: Elaborating a Legal Framework for Website Blocking*, 32(1) AMERICAN U. INT’L L. REV. 43 (2016).

amorphous notions of public order, defamation, and morality. In this respect, the emergence of administrative enforcement of online intermediary liability appears as another well-marked trend in recent Internet governance. Multiple administrative bodies have been put in charge of enforcing a miscellaneous array of online infringements—primarily against intermediaries—and judicial supervision is often absent in these cases. Some administrative bodies—such as the Italian Communication Authority (AGCOM) and Second Section of the Copyright Commission (CPI)—have been provided with powers to police copyright infringement online and issue blocking orders and other decisions to selectively remove infringing digital works.⁸⁸

Many other administrative agencies enjoy broader powers of sanitization of the Internet. The Russian Roskomnadzor is an administrative body competent to request telecom operators to block access to websites featuring content that violates miscellaneous pieces of legislation. It is also competent to keep a special registry or “*blacklist*” where it adds websites that violate the law.⁸⁹ In South Korea, Korea Communications Commission implements deletion or blocking orders according to the requests and standards of the Korea Communications Standards Commission “*as necessary for nurturing sound communications ethics.*”⁹⁰ In Turkey, the law empowers the Presidency of Telecommunications (TIB) to block a website or web page within 4 hours without any judicial decision for the violation of a new category of crimes labelled as “*violation of private life*” or privacy.⁹¹ Similarly, in India, Section 69A(1) of the Information Technology Act, 2000 provides the government with the “*power to issue directions for blocking for public access of any information through any computer resource.*”⁹² This is

⁸⁸ See AGCOM Regulations regarding Online Copyright Enforcement, 680/13/CONS, December 12, 2013, *available at* <http://cyberlaw.stanford.edu/page/wilmap-italy>; Royal Legislative Decree No. 1/1996, enacting the consolidated text of the Copyright Act, April 12, 1996 (as amended by the Law No. 21/2014, November 4, 2014), *available at* <http://cyberlaw.stanford.edu/page/wilmap-spain>.

⁸⁹ See Federal Law No. 139-FZ, on the Protection of Children from Information Harmful to Their Health and Development and Other Legislative Acts of the Russian Federation (aka “Blacklist law”), July 28, 2012, *available at* <http://cyberlaw.stanford.edu/page/wilmap-russia>.

⁹⁰ See Act on the Establishment and Operation of Korea Communications Commission (KCCA), last amended by Act No. 11711, March 23, 2013, *available at* <http://cyberlaw.stanford.edu/page/wilmap-south-korea>.

⁹¹ See Omnibus Bill, No. 524 (first introduced on June 26, 2013), Amending Provisions in Various Laws and Decrees including Law No. 5651 “Regulation of Publications on the Internet and Suppression of Crimes Committed by Means of Such Publications”, Law No. 5809 “Electronic Communications Law” and others, *available at* <http://cyberlaw.stanford.edu/page/wilmap-turkey>.

⁹² See Information Technology Act, 2000, as amended by the Information Technology (Amendment) Act 2008, Section 69A(1), *available at* <http://cyberlaw.stanford.edu/page/wilmap-india>.

dealt with by a special Committee which examines within seven days all the requests received for blocking access to online information according to Section 69A(1).⁹³ In *Shreya Singhal v. Union of India*, the Supreme Court of India confirmed the validity of blocking orders issued under Section 69 of the Information Technology Act, 2000, although under certain limitations.⁹⁴ Many other national administrative authorities—such as the Supreme Council of Cyberspace in Iran or CONATEL in Venezuela—also issue orders against Internet Service Providers (ISPs) regarding the legality, blocking and removal of online content, which do not involve—or involve very limited—judicial review.⁹⁵ Concerned views have been voiced against administratively issued blocking orders, on grounds of undermining of the guarantee of basic due process. In particular, such orders run counter to the second Manila Intermediary Liability Principle, which states that content must not be required to be restricted without an order by a judicial authority.⁹⁶

In the information society, the role of private sector entities in gathering information for and about users has long been a very critical issue. Therefore, intermediaries have become a main focus of privacy regulations, especially in jurisdictions such as Europe which have a strong tradition of privacy protection.⁹⁷ In a landmark case of *Google Spain*, the European Court of Justice ruled that an internet search engine operator is responsible for the processing that it carries out of personal data which appear on web pages published by third parties.⁹⁸ Multiple jurisdictions are trying to

⁹³ See Information Technology (Procedure and Safeguards for Blocking for Access of Information by Public) Rules, 2009 (to be read with Section 69A of the Information Technology Act, 2000), Rule 7, available at <http://cyberlaw.stanford.edu/page/wilmap-india>.

⁹⁴ See *Shreya Singhal v. Union of India*, (2015) 5 SCC 1.

⁹⁵ See Executive Order of the Supreme Leader Establishing the Supreme Council of Cyberspace, March 2012, available at <http://cyberlaw.stanford.edu/page/wilmap-iran>; Ley de Responsabilidad Social en Radio Televisión y Medios Electrónicos [ResorteME] [Law of Social Responsibility in Radio-Television and Electronic Media], Official Gazette No. 39.579, December 22, 2012, available at <http://cyberlaw.stanford.edu/page/wilmap-venezuela>.

⁹⁶ See Manila Principles, *supra* note 16, at Principle No. 2.

⁹⁷ See Bart van der Sloot, Welcome to the Jungle: The Liability of Internet Intermediaries for Privacy Violations in Europe, 6 JIPITEC 211 (2015).

⁹⁸ See *Google Spain SL v. Agencia Española de Protección de Datos (AEPD)*, 2014 QB 1022 : (2014) 3 WLR 659, available at <https://cyberlaw.stanford.edu/page/wilmap-european-union>; see also (clarifying that (1) Search engines qualify as data controllers under Directive 95/46/EC to a search engine insofar as (a) the processing of personal data is carried out in the context of the activities of a subsidiary on the territory of a Member State, (b) set up to promote and sell advertising space on its search engine in this member State with the aim of making that service profitable. In this case, the processing of data by search engines, “must be distinguished from, and is additional to that carried out by publishers of third-party websites”); Christopher Kuner, *The Court of Justice of the EU Judgment on*

cope with RTBF demands following this landmark case.⁹⁹ The emergence of the RTBF—and its extra-territorial application which will be mentioned later—follows in the footsteps of a global move towards data protectionism against the *de facto* market dominance of the United States Internet conglomerates.¹⁰⁰ There are plenty of recent examples, including the European Court of Justice’s *Schrems* decision and the Russian Federal Law No. 242-FZ. In *Schrems*, the European Court of Justice had ruled that the transatlantic Safe Harbor Agreement—which lets American companies use a single standard for consumer privacy and data storage in both the United States and Europe—is invalid.¹⁰¹ Russia also introduced a legislation that requires that the processing of personal data of Russian citizens be conducted with the use of servers located in Russia.¹⁰²

Finally, extra-territorial enforcement of intermediaries’ obligations might be the next emerging trend in intermediary liability policy. This phenomenon is closely attached to the protectionist impulses that characterize present international relationships and Internet governance. Extra-territorial enforcement recently made the headlines for the worldwide enforcement of the RTBF. European institutions endorse the view that delisting should have an extra-territorial reach. On the territorial effect of de-listing decisions, the WP29 Guidelines noted that limiting de-listing to EU domains cannot be considered as a sufficient means to satisfactorily guarantee the rights of data subjects according to the ruling. In practice, “*this means that in any*

Data Protection and Internet Search Engines: Current Issues and Future Challenges, in PROTECTING PRIVACY IN PRIVATE INTERNATIONAL AND PROCEDURAL LAW AND BY DATA PROTECTION 19-55 (Burkhard Hess and Cristina M. Mariottini (eds.), Ashgate 2015), available at <http://ssrn.com/abstract=2496060>.

⁹⁹ See Giancarlo F. Frosio, *Right to be Forgotten: Much Ado About Nothing*, 15(2) COLORADO TECH. L. J. (forthcoming 2017), available at <https://ssrn.com/abstract=2908993>.

¹⁰⁰ See Maria Farrel, ‘How the Rest of the World Feels About U.S. Dominance of the Internet’ (SLATE, November 18, 2016), http://www.slate.com/articles/technology/future_tense/2016/11/the_u_s_should_stop_lecturing_about_internet_values.html.

¹⁰¹ See, e.g., *Schrems v. Data Protection Commr.*, 2016 QB 527 : (2016) 2 WLR 873.

¹⁰² See Federal Law No. 242-FZ, on Amending Certain Legislative Acts of the Russian Federation as to the Clarification of the Processing of Personal Data in Information and Telecommunications Networks, July 21, 2014, available at <http://cyberlaw.stanford.edu/page/wilmap-russia>; see also CNIL, The French Data Protection Authority Publicly Issues Formal Notice to Facebook to Comply with the French Data Protection Act within Three Months, February 9, 2016, <https://www.cnil.fr/en/french-data-protection-authority-publicly-issues-formal-notice-facebook-comply-french-data>; Felipe Busnelo and Giancarlo Frosio, WhatsApp in Brazil?, CIS Blog, December 28, 2015, <https://cyberlaw.stanford.edu/blog/2015/12/whatsapp-brazil>; Mark Scott, ‘Russia Prepares to Block LinkedIn After Court Ruling’ (THE NEW YORK TIMES, November 10, 2016), <http://www.nytimes.com/2016/11/11/technology/russia-linkedin-data-court-blocked.html> (as LinkedIn does not comply with recent legal obligations in Russia that require all companies doing business in the country to store their data locally).

*case de-listing should also be effective on all relevant .com domains.*¹⁰³ Recently—in accordance with the WP29 Guidelines—the Commission Nationale de l’informatique et des Libertés (CNiL), the French data protection authority—ordered Google to apply the RTBF on all domain names of Google’s search engine, including the .com domain.¹⁰⁴ Meanwhile, decisions imposing extra-territorial obligations on intermediaries have appeared elsewhere too. The Court of Appeal of British Columbia issued an order requiring Google to remove websites from its worldwide index. The court order—which is now under review with the Supreme Court of Canada—is unprecedented for Canada as it forces Google to remove links anywhere in the world, rather than only from the search results available through Google.ca.¹⁰⁵ While extra-territorial enforcement might potentially break the Internet, it is telling of a disconnection between physical and digital governance of information and content, and this disconnection seems to be unwilling to go away, at least for some time.

VI. CONCLUSIONS

Given the online intermediaries’ role in the digital interconnected society, their liability for the speech and content they carry has become a primary policy concern. Much has changed since the inception of the first online intermediary and its regulation. New challenges have brought to fore a discussion regarding the scope of intermediaries’ duties and obligations. The WILMap has been developed to promote better understanding of a confusing international legal framework. Several other projects in the last few years have also aimed at reducing uncertainty regarding the international intermediary liability conundrum online. This uncertainty can hurt users by potentially scaring companies away from providing innovative new services in certain markets. Additionally, companies may unnecessarily limit what users can do online, or engage in censorship-by-proxy to avoid uncertain retribution under unfamiliar laws. National courts and authorities, on the other hand, may seek extra-territorial enforcement to prevent any access to

¹⁰³ Art. 29 Data Protection Working Party, Guidelines to the Implementation of the CJEU Judgment on *Google Spain v. Costeja*, 14/EN WP 225 (November 26, 2014), at 3 (emphasis added).

¹⁰⁴ See CNiL, Restricted Committee, Deliberation No. 2016-054 (March 10, 2016), https://www.cnil.fr/sites/default/files/atoms/files/d2016-054_penalite_google.pdf; see also CNiL Orders Google to Apply Delisting on all Domain Names of the Search Engine, CNiL, June 12, 2015, <https://www.cnil.fr/fr/node/15790>.

¹⁰⁵ See *Equustek Solutions Inc. v. Google Inc.*, 2015 BCCA 265 (Court of Appeal of British Columbia 2015), available at <http://www.courts.gov.bc.ca/jdb-txt/CA/15/02/2015BCCA0265.htm>.

infringing materials in their jurisdiction. As a result, in such a confusing legal and theoretical landscape, there is a growing tendency towards Internet fragmentation, which is made even more obvious by unconcealed national tendencies toward data protectionism.

Further, as discussed, the intermediary liability discourse is shifting towards an intermediary responsibility discourse. This process might be pushing an amorphous notion of responsibility that incentivizes intermediaries' self-intervention to police allegedly infringing activities on the Internet. Several emerging legal trends in the intermediary liability domain reflect this change in perspectives, such as voluntary agreements and private enforcement. This is also reflected by other legal arrangements that make the role of online intermediaries more prominent. This is the case of three-strike legislations, blocking orders dealt almost entirely between intermediaries and rightholders, and administrative enforcement of intermediary liability online. Meanwhile, retraction of intermediaries' safe harbours, proactive monitoring obligations, and the wider enforcement of blocking orders further accomplish the goal of turning online intermediaries into Internet police.

OXFORD UNIVERSITY V. RAMESHWARI PHOTOCOPY SERVICES - RESHAPING THE COPYRIGHT DISCOURSE

*Kartik Chawla**

I. INTRODUCTION

The central purpose of copyright law is to ensure that the creation of intangible creative works is consistently incentivised, even where the nature of these works themselves may not quite allow for it. The ‘means’ for this are the limited monopolies; the ‘end’, however, is that these works actually be consumed or actually be read. It is not only the creation of these works that is crucial, but it is also immensely crucial that the works be *accessible* (a word with multiple strata of meanings) to the masses.

The Indian copyright law is not clear on whether copyright is a natural right or a statutory creation.¹ However, it is important to remember that the justifications for copyright are based on the creation of an ‘artificial’ market for a specific category of such intangible works through state-given sanction for limited monopolisation.

Copyright, therefore, requires a balance between the limited monopolies given to the authors of these works and the access given to the consumers. However, in the last few decades, the focus and perspectives of the copyright owner and of ‘private property’ have been dominantly influential in copyright law.² This has arguably been particularly relevant due to the major

* Kartik Chawla is a fifth year B.A., LL.B (Hons.) student at the NALSAR University of Law, Hyderabad, India.

¹ Prashant Reddy, ‘Counterview – The DU Photocopy Case – How Wide Should Educational Use Exceptions be in the Age of Photocopier Machines?’ (SpicyIP, September 19, 2016), available at <https://spicyip.com/2016/09/counterview-the-du-photocopy-case-how-wide-are-educational-use-exceptions-in-the-age-of-photocopier-machines.html> (Last visited on March 31, 2017).

² Lawrence Liang, *Exceptions and Limitations in Indian Copyright Law for Education*, 3(2) LAW AND DEVELOPMENT REVIEW 197, 210 (2010).

reduction of costs involved in production and reproduction of intangible works with the evolution of ICTs.

This essay analyses the judgment of the Division Bench of the Delhi High Court in the case of *University of Oxford v. Rameshwari Photocopy Services*³ from the perspective of fair use and the public domain, and the importance of the educational exceptions in contrast with the private property and trade-centric discourse of copyright. The essay is divided into five parts. After the introduction, the second chapter discusses the importance of commons in the core philosophy of copyright law, and how this has been subsumed by the private property discourse in the recent decades. The third chapter provides a brief summary of the judgment, and then analyses its implications in the context of these competing discourses. The fourth chapter responds to certain critiques of the judgment. The final chapter concludes the essay, noting that the perspective taken in the judgment is a significant victory for the commons discourse over the private property discourse. It notes that while there is a fair critique for the blow that has been dealt here to the financial incentives for authors and publishers and we must find ways to incorporate new methods of creating such incentives, the judgment allows us to approach this from a commons-based perspective, which is crucial in itself.

II. THE COPYRIGHT DISCOURSE AND THE COMMONS

The theories and jurisprudence of a legal regime necessarily have a quintessential structural influence on the regime in question. But, when we analyse legal regimes closely we find that this structural influence is, in some cases, lacking. Legal structures sometimes work without taking into account the context and the reality adequately,⁴ and this lacuna can be very dangerous to the very evolution of the law.

Copyright law is, broadly, a statutory creation intended to create artificial incentives for the creation of more 'intangible' content. It is meant to protect the rights and interests of the authors and publishers, but at the same time, it is also meant to support the commons,⁵ to support access to this content for the masses, particularly for the purpose of education. This harkens back

³ *University of Oxford v. Rameshwari Photocopy Services*, 2016 SCC OnLine Del 6229.

⁴ Margaret Davies, *ASKING THE LAW QUESTION*, 96 (3rd edn., THOMSON, Law Book Company of Australia 1994).

⁵ William T. Fisher, 'The Theories of Intellectual Property', available at <https://cyber.harvard.edu/people/tfisher/iptheory.pdf> (Last visited on March 31, 2017).

to the first copyright statute itself, i.e., the Statute of Anne,⁶ and even the first copyright act in the United States (US).⁷ The theories of copyright, in all their variations, require a healthy, burgeoning commons.⁸

The commons plays an integral and often underestimated role in the copyright system. Not only is the commons necessary for ensuring that copyrighted works are more than mere inaccessible books locked behind chains of unaffordability (in which they are helped by market competition), the commons is also the most significant source of ‘material’ from which the copyrightable works are drawn to begin with.

A work is considered to be in the public domain or ‘commons’ if it does not qualify for any copyright protection at all, i.e., there is no copyright on it, and any person can use it as he or she deems fit. ‘Fair use’, on the other hand, carves out certain situations in which a person can make use of even a copyrighted work, and to that extent the copyright is suspended. A key problem in recent decades, however, has been that fair use has come to be seen as a ‘defence’ to claims of copyright infringement, of infringement of the ownership of private property. What is ignored here is the fact that fair use is actually a *right*, an essential part of the copyright law itself. Fair use is, in a way, the gateway to the commons, rather than a mere defence to claims of ownership of intellectual property.

Going one step beyond the pure commons, however, we come to the thorny condition of one of its most significant tools in fair use: “*educational exceptions*”. Educational exceptions play a fundamental role in copyright law, working as they do at the intersection of a host of societal factors. The importance of educational exceptions for access to information and even the right to education has been much debated and discussed.⁹ At the same time, educational exceptions also cover a rather sensitive and difficult market, with continued and consistent ‘incentivisation’ being crucial for the creation of more significant works and with authors struggling to fully capitalise

⁶ Lawrence Liang, *The Essence of Education*, THE HINDU (December 13, 2016), available at <http://www.thehindu.com/opinion/lead/The-essence-of-education/article16798107.ece> (Last visited on March 31, 2017).

⁷ Mike Masnick, ‘Copyright Week: Open Access as the Antidote to Privatizing Knowledge and Learning’ (TechDirt, January 15, 2014), available at <https://www.techdirt.com/articles/20140115/11022325887/copyright-week-open-access-as-antidote-to-privatizing-federally-funded-knowledge.shtml> (Last visited on March 31, 2017).

⁸ Kartik Chawla, ‘Authors’ Guild v. Google – A Fair Use Victory, and a Chance for Introspection’ (SpicyIP, November 8, 2015), available at <https://spicyip.com/2015/11/authors-guild-v-google-a-fair-use-victory-and-a-chance-for-introspection.html> (Last visited on March 31, 2017).

⁹ Liang, *supra* note 2, at 209.

upon their works.¹⁰ Added to this, the Indian education scenario makes this a particularly arduous exercise.¹¹

However, the discourse in copyright law has largely been dominated by the perspective of the copyright owner, by the discourse of ‘private property’, particularly since the last few decades.¹² This focus is particularly evident in the fact that while the monopoly created by copyright has been seen as the norm or as ‘the rule’ in the recent past, tools of the commons are defined as the ‘exceptions and limitations’ despite strong contentions to the contrary.¹³ Fair use and fair dealing, in many ways and across jurisprudences, are depicted as “*defences*” to infringement, and not as equal participants in the process with private law. There has been a growing call from theorists and from the civil society to recognise the fact that this discourse is skewed and that the rights of the owner are not the sole or even the dominant perspective in copyright law.¹⁴ As Locke’s famous, and underused, proviso puts it, a person may legitimately acquire property rights by mixing his ‘labour’ with resources held in the ‘commons’ only if that leaves “*enough and as good in commons for others*”.

There needs to be an active recognition of the fact that the commons is not the result of the ‘exception and limitations’ of copyright law, but that it is an integral part of the copyright regime *per se*. We need to recognise that although copyright law is meant to protect the rights of the users and incentivise them to create more, at the same time, it is also meant to ensure that the public in general can *access* these creations, particularly in the education sector. We need to consider the commons to be as significant a part of the copyright regime as the rights of the owners themselves.

¹⁰ Prashant Reddy, ‘Counterview: The Outcome of the DU Photocopy Case isn’t Necessarily Good News for Higher Academia in India’ (SpicyIP, September 19, 2016), *available at* <https://spicyip.com/2016/09/counterview-the-outcome-of-the-du-photocopy-shop-isnt-necessarily-good-news-for-higher-academia-in-india.html> (Last visited on March 31, 2017).

¹¹ Liang, *supra* note 2, at 210.

¹² Lawrence Liang, ‘The Radical Significance of the DU Photocopy Case for Global Copyright’ (Kafila Online, September 20, 2016), *available at* <https://kafila.online/2016/09/20/the-radical-significance-of-the-du-photocopy-case-for-global-copyright/> (Last visited on March 31, 2017); Philip G. Altbach, *Knowledge Enigma: Copyright in the Third World*, 21(37) ECONOMIC AND POLITICAL WEEKLY 1643 (September 13, 1986).

¹³ Dinusha Mendis, *The Historical Development of Exceptions to Copyright and its Application to Copyright Law in the Twenty-First Century*, 7(5) ELECTRONIC JOURNAL OF COMPARATIVE LAW (2003), *available at* <https://www.ejcl.org/75/art75-8.html> (Last visited on March 31, 2017).

¹⁴ Altbach, *supra* note 12.

III. OXFORD UNIVERSITY V. RAMESHWARI PHOTOCOPY SERVICES – AN ANALYSIS

The copyright infringement petition in the case at hand was filed by three publishers, Oxford, Cambridge and Taylor Francis, in August 2012 against Rameshwari Photocopy Services (a photocopy shop located on the Delhi University campus) and the Delhi University itself. Interventions in the case were filed by the Association of Students for Equitable Access to Knowledge ('ASEAK') and the Society for Promoting Educational Access and Knowledge ('SPEAK'). The argument of the petitioners here was that the creation of course packs, including the photocopying of copyrighted materials required for the same, was an infringement of the exclusive copyright of the authors and publishers. The defendants, on the other hand, argued that this fell within the exception to copyright provided for under S. 52(1)(i) of the Copyright Act, 1957.

These course packs were compilations of excerpts from academic publications, including publications from the petitioners, which were part of the official syllabus of the Delhi University. A master copy was created by the University from the original books that it had purchased, and photocopies of the same were issued to the university students by the photocopy shop.

The Division Bench judgment was written by Justice Nandrajog, and delivered by a bench comprising of Justice Nandrajog and Justice Khanna on December 9, 2016 ('Oxford II'). It was a decision on the appeal filed by the petitioners in the case against Justice Endlaw's Single Bench judgment delivered on September 16, 2016 ('Oxford I'). The appeal judgment was delivered after what feels to be a preternaturally quick appeals process, especially anomalous in the infamously slow Indian judicial system.¹⁵

Justice Endlaw had ruled in favour of the respondents in the case, i.e., *Rameshwari Photocopy Services and others*, stating that the photocopying involved was covered under education exception embodied in S. 52(1)(i) of the Copyright Act, 1957. The Single Judge Bench had found no triable issue on fact and dismissed the case outright.

The Division Bench, in its judgment, largely concurred with the findings of the Single Bench, but there were some crucial differences. While the Single

¹⁵ Shamnad Basheer, 'Publishers vs Pupils: Delhi High Court has Struck a Blow for the Right to Copy Copyrighted Material' (Scroll.in, December 13, 2016), available at <https://scroll.in/article/823996/publishers-vs-pupils-delhi-high-court-has-struck-a-blow-for-the-right-to-copy-copyrighted-material> (Last visited on March 31, 2017).

Bench found no triable issue, the Division Bench did find triable issues and remanded the same back to the Single Bench.

The Division Bench proposed the legal issue which arise for consideration to be: whether the right of reproduction of any work, by a teacher or a pupil, *in the course of instruction*, is absolute, and not limited by the condition of ‘fair use’. The sub-question that the Bench identified was regarding the span of the phrase “*by a teacher or a pupil in the course of instruction*”. It identified the issues regarding ‘reproduction and publication’ as sub-issues.¹⁶ It also dealt with the status of Rameshwari Photocopy as an ‘intermediary’ for the unauthorised photocopying,¹⁷ and with the question of whether the University had given ‘official sanction’ to the photocopying.

Rejecting the arguments of the appellant-plaintiffs regarding a narrow interpretation of ‘instruction’, the Division Bench upheld a broader reading of the term, citing the Parliamentary debates that led to the enactment of the 2012 amendments. Vitally, in this and in rejecting the distinction between textbooks and course packs, and throughout the judgment, the Bench takes pains to emphasise the importance of education as a whole as well as of access to education, particularly in the Indian context.¹⁸

While the Bench found the principle of fairness to be an essential aspect of the copyright statute, it rather favoured the general principle of fair use over the four-part test that was argued for by the appellant-petitioner.¹⁹ The Bench stated that, “*the fairness in the use can be determined on the touchstone of ‘extent justified by the purpose’. In other words, the utilization of the copyrighted work would be a fair use to the extent justified for purpose*

¹⁶ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶17.

¹⁷ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶60.

¹⁸ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶28 & ¶30,

“30. *The importance of education lies in the fact that education alone is the foundation on which a progressive and prosperous society can be built. Teaching is an essential part of education, at least in the formative years, and perhaps till post-graduate level. It would be difficult for a human to educate herself without somebody : a teacher, helping. It is thus necessary, by whatever nomenclature we may call them, that development of knowledge modules, having the right content, to take care of the needs of the learner is encouraged. We may loosely call them textbooks. We may loosely call them guide books. We may loosely call them reference books. We may loosely call them course packs. So fundamental is education to a society – it warrants the promotion of equitable access to knowledge to all segments of the society, irrespective of their caste, creed and financial position. Of course, the more indigent the learner, the greater the responsibility to ensure equitable access.(emphasis supplied)”.*

¹⁹ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶ 31.

of education.”²⁰ This, in itself, is very significant as the four-part test represents a fairly private property-centric view of the exceptions to copyright law. The purpose test, on the other hand, prioritises education and access over market considerations, seeing the educational exceptions as more central to the copyright regime than mere ‘exceptions’.

On ‘publication’ and ‘reproduction’, the Division Bench accepted a narrower interpretation of ‘public’ with regard to the niche market for publications rather than the view taken by the Single Judge Bench.²¹ However, it went on to hold that a ‘publication’ has an element of profit which it found to be lacking, taking judicial notice of the fact that the average price for photocopies in the relevant time period was 50 paise per page, while Rameshwari Photocopy had agreed to charge only 40 paise per page. It also went on to state that if ‘reproduction’ includes the plural, it cannot be held that making multiple copies, i.e., ‘publication’, will not be permitted.²²

Finally, as mentioned earlier, the Division Bench found the quantum of copying to be a triable issue on facts, and remanded the same to the Single Judge Bench.

The Court recognised the importance of the educational exceptions at multiple occasions in the judgment, including:

*“36. It could well be argued that by producing more citizens with greater literacy skills and earning potential, in the long run, improved education expands the market for copyrighted materials.”*²³

The importance given by the Court to the educational exception is put most succinctly in one of the most famous paragraphs of this judgment:

“76. A lay person may question as to how a provision in a statute results in an interpretation where a right conferred on a person to use the work of another without any compensation would be just and fair. The question would obviously arise: Is it possible that a provision in a statute partially drowns another provision. This lay person would obviously desire, and perhaps logic would feed the desire, that

²⁰ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶ 33.

²¹ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶ 57.

²² University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶ 57 & ¶ 60.

²³ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶ 36.

no provision should be drowned or partially drowned. After all, in the melody of the statute all notes should be heard.

77. We therefore answer this question, which certainly arises, using the imagery of music. A melody is the outcome of the sounds created when different instruments, such as a lute, flute, timbale, harp and drums are played in harmony. The notes of the instruments which are loud and resonating have to be controlled so that the sound of the delicate instruments can be heard. But it has to be kept in mind that at proper times the sound of the drums drowns out the sound of all other instruments under a deafening thunder of the brilliant beating of the drums. Thus, it is possible that the melody of a statute may at times require a particular Section, in a limited circumstance, to so outstretch itself that, within the confines of the limited circumstance, another Section or Sections may be muted. (emphasis supplied)²⁴

As this extract clarifies, it is at some occasions necessary for certain provisions of the statutory copyright law to be ‘muted’ so that other sections, in this context the educational exception, can be given the overriding importance the context deserves. This interpretation of the fair use exceptions for education clearly and strongly emphasises the importance of fair use even over the significance of the ‘private property’ of copyright owners, in turn emphasising the right to education over copyright ownership.

The judgment is also momentous insofar as it relies strongly on the leeway allowed to countries under the TRIPS (The Agreement on Trade-Related Aspects of Intellectual Property Rights) and Berne Conventions. Whether it has violated the same, however, is a question that has not been dealt with herein.

IV. A RESPONSE TO CRITIQUES

One major critique of the judgment delivered by the Single Judge Bench has been the absolute breadth of photocopying allowed under it.²⁵ This cri-

²⁴ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶ 76 & ¶ 77.

²⁵ Prashant Reddy, ‘Counterinterview – The DU Photocopy Case – How Wide Should Educational Use Exceptions be in the Age of Photocopier Machines?’ (SpicyIP, September 19, 2016), available at <https://spicyip.com/2016/09/counterinterview-the-du-photocopy-case-how-wide-are-educational-use-exceptions-in-the-age-of-photocopier-machines.html> (Last visited on March 31, 2017); Mathews P. George & Chithra P. George, ‘A Critique of Delhi High Court Judgment in DU Photocopy Case’ (LiveLaw.in, October 6, 2016), available at <http://www.livelaw.in/critique-delhi-high-court-judgment-du-photocopy-case/> (Last visited on March 31, 2017).

tique argues that the Court has taken too liberal an approach, and that the narrative here had become one of binaries – either the defendants and ‘fair use’, and access to education with them, prevailed or the petitioners prevailed, which meant that each student would be charged at the full price of each book.²⁶ The argument here is that the Court could have taken a more ‘balanced’ approach. It could have perhaps delineated circumstances when unauthorised photocopying would be allowed and circumstances for the use of compulsory licences where access still remained a problem, or perhaps pair a similar breadth of permission for photocopying with the University paying the publishers through a licensing arrangement.

These criticisms raise a fair point, but they arguably fail to see the true dearth of accessibility of education in India. This case affects not just Delhi University, but every educational institution in the country, and directly ties into the right to education mentioned in the Indian Constitution. Furthermore, this critique underestimates the importance of this case in establishing the priority of the commons-based discourse over the private property discourse. This issue has been addressed, to some extent, by the Division Bench judgment, as discussed below.

A second critique against both these judgments has been that the market for academic publishing is a very small market, and paying publishers arguably nominal amounts for the creation of course packs through photocopying would not only have been too costly on the consumer end, but could lead to substantial benefits for the publishers and authors.²⁷ This would lead to greater incentives for authors and publishers to engage with Indian scholarships, and consequently would lead to an improvement in Indian scholarship.

Of course, while the market size may not increase as a result of this judgment, it definitely is not decreasing either. This practice, of photocopying, had been significantly widespread in India even before the judgment, which is exactly why the judgment was considered as important as it was. However, the concern is not simply that the status quo will be maintained, but that the lack of this monetisation creates a *disincentive* for publishers in directing their resources towards Indian scholarship, and would lead to publishing

²⁶ Maanav Kumar, ‘The Copyright Imbalance in the DU Photocopy Case’ (TheWire.in, September 29, 2016), available at <https://thewire.in/69358/du-photocopy-case-not-balanced/> (Last visited on March 31, 2017).

²⁷ Prashant Reddy, ‘Counterview: The Outcome of the DU Photocopy Case isn’t Necessarily Good News for Higher Academia in India’ (SpicyIP, September 19, 2016), available at <https://spicyip.com/2016/09/counterview-the-outcome-of-the-du-photocopy-shop-isnt-necessarily-good-news-for-higher-academia-in-india.html> (Last visited on March 31, 2017).

resources being diverted away from it, towards more economically feasible markets. This, it argues, can lead to lesser competition in Indian academia.²⁸

The answer to this critique is slightly roundabout. *First*, while the critique proposes a nominal charge for photocopying and the publishers in this case did ask for a nominal amount, there is a strong argument to be made that this amount would not have remained nominal if left to the free market. Setting this amount by judicial diktat would also be possible, but would lead to its own set of complications²⁹ – issues of pricing are arguably some of the most complicated ones in Intellectual Property law.

Second, is the balance I referred to earlier, between access and incentivisation. The publishing market is inherently skewed against third world countries in many ways, and India faces substantial problems in ensuring access to education for its 1.2 billion strong population, particularly due to its socioeconomic stratification. A 2012 study shows that the absolute costs of books are often higher in the global ‘South’ than the global ‘North’, and consumers in the ‘South’ have to contribute significantly higher proportions of their income to buy books.³⁰ As the study notes, on equating the cost of books with the proportion of income they would form for an Indian consumer with an American consumer, the American consumer would be charged \$440.50 for a copy of Arundhati Roy’s ‘*God of Small Things*’, which is likely to raise a lot of questions. However, an Indian consumer paying \$6.60 for the same book would not be considered problematic, even though the latter is the equivalent of the former by the proportion-of-income argument.³¹ According to the study, if American consumers had to pay the same proportion of their income towards such books as their African and Indian counterparts, the equivalent prices would be ridiculous.³² These disparities are enormous, and the people worst affected by this are specifically the ones who need access to education the most. They cannot and must not be ignored.

Third, while the judgment of the Single Judge Bench allowed quite a broad room for unauthorised photocopying, the judgment of the Division Judge Bench is arguably more tempered. The judgment itself did not go into

²⁸ Prashant Reddy, ‘Counterinterview: The Outcome of the DU Photocopy Case isn’t Necessarily Good News for Higher Academia in India’ (SpicyIP, September 19, 2016), available at <https://spicyip.com/2016/09/counterinterview-the-outcome-of-the-du-photocopy-shop-isnt-necessarily-good-news-for-higher-academia-in-india.html> (Last visited on March 31, 2017).

²⁹ Michael J. Sandel, *JUSTICE: WHAT’S THE RIGHT THING TO DO?*, 82 (Penguin Books 2010).

³⁰ Liang, *supra* note 2, 206.

³¹ Liang, *supra* note 2, 206.

³² Liang, *supra* note 2, 206 (As of 2012, Nelson Mandela’s ‘*Long Walk to Freedom*’ would cost \$1027.50, while the Oxford English Dictionary would cost \$941.20.).

it in detail, but it limited the amount of photocopying to only that which is necessary for the ‘purpose’ of the ‘course of instruction’.³³ The Court did not tell us how this necessity is to be ascertained, but it remanded the matter to the Single Judge Bench to deal with exactly the same issue, and left it open for determination. It explicitly stated that the issue of “*whether photocopying of entire books would be a permissible activity*” remained open to determination,³⁴ and seemed to refer to the ‘yearly release’ limitation of the *Longman* judgment³⁵ with approval.³⁶ This test remains open-ended at the moment, but that is arguably no better or worse than the issue of pricing of the photocopying being open ended.

Which brings me to my *fourth* point– the inherent assumption in this market-based critique is that the market size would *increase* if charges were attached to unauthorised photocopying. As long as this charge is limited to a nominal value, it would arguably be viable from the access perspective though the capital gained may not be too substantial. However, the fact is that as far as the market for the actual publications in question is concerned, a vast majority of the people, who can now access at least portions of them, would not have been able to purchase the books in the first place. A large number of people who would benefit from this exemption were not potential ‘customers’ to begin with.

The only change would have been that the universities or the students would have had to pay a certain extra amount, nominal or otherwise, to access even their courses in a country already suffering from hurdles in providing access to education.³⁷ Where you have an absolute inability to afford books coupled with a *need* to access the books, particularly for something as vital as education, you end up with a positive effect on piracy.³⁸ And, ‘unable to afford’ is a very wide and critical category in India. Variations in socio-economic status coupled with the massive population results in a lot of people, particularly those especially in need of education, being unable to afford even low-priced books. Furthermore, if the Court had accepted the restricted quantum of fair use argued by the petitioners, the restrictive

³³ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶ 56.

³⁴ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶ 79.

³⁵ Longman Group Ltd. v. Carrington Technical Institute Board of Governors, (1991) 2 NZLR 574.

³⁶ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶ 53.

³⁷ Pheroze L. Vincent, *JNU Slashes Research Seats*, THE TELEGRAPH (March 22, 2017), available at https://www.telegraphindia.com/1170322/jsp/nation/story_142010.jsp#.WN5Uk76P-Mo (Last visited on March 31, 2017).

³⁸ Liang, *supra* note 2, 209.

effects would have been severely compounded.³⁹ A potential argument, one that the Court also makes, is that if more people can access extracts of those books, there is a higher chance of them buying the books,⁴⁰ especially if combined with access to education resulting in an improvement of socio-economic circumstances.

And finally, *fifth*, it is still clear that the critique raises a relevant point, and that the Indian academia can do with some incentivisation for publishers. However, the judgment marks important victories for educational exceptions in copyright law, for the commons discourse, and for access to education, and a necessary reshaping of the copyright discourse. If a method of reaching this end, i.e., of making Indian academia more appealing, can be found without rolling back this judgment to legally allow for publishers charging on photocopying, it must be preferred in practice. Photocopying, as a tool for reproducing content to support education, is a weighty tool that should not be hampered simply because its effect was not predicted when the laws were being conceived. It is important, of course, to incentivise the creation of academic works and to recompense the authors for the use of their work. However, it would be better to approach this issue from the commons perspective, as the Court has, and then buttress the incentivisation as much as possible, arguably through a system of ‘contributions’ based on ability-to-afford, rather than to shift its costs onto those who are already struggling. For instance, a voluntary contribution system similar to the Creative Commons system can be set up at Universities, or made available online; or, alternative payment methods like the Patreon system can be considered.⁴¹ These methods would be much better than a legally mandated duty to pay, which would necessarily increase the base costs associated with education, but would still allow a method for recompense to authors and publishers.

V. CONCLUSION

While this judgment and the analysis herein are focused on the Indian context, it is important to note that the property-centric view of intellectual

³⁹ Lawrence Liang, *The Essence of Education*, THE HINDU (December 13, 2016), available at <http://www.thehindu.com/opinion/lead/The-essence-of-education/article16798107.ece> (Last visited on March 31, 2017).

⁴⁰ University of Oxford v. Rameshwari Photocopy Services, 2016 SCC OnLine Del 6229, ¶ 36,

(“...It could well be argued that by producing more citizens with greater literacy skills and earning potential, in the long run, improved education expands the market for copyrighted materials”).

⁴¹ Patreon HelpDesk, ‘What is Patreon’, available at <https://patreon.zendesk.com/hc/en-us/articles/204606315-What-is-Patreon> (Last visited on March 31, 2017).

property is not an issue faced by India alone. Even in the education sector, strong moves towards the chaining of academic research in terms of ‘property’ have been facing protests across borders.⁴² This has been true even in the West, with the judgment of the US Supreme Court in *Authors Guild v. Google* similarly promoting a *right* to fair use, though in a different factual situation.⁴³

At the same time, the increasing severity and cost of paywalls and other restrictions on access to academic works have been criticised across the world,⁴⁴ with Elsevier being the subject of much critique.⁴⁵ Many academicians and activists have, in fact, gone so far as to oppose these restrictions by making many articles available for free or creating tools for finding free versions of articles.⁴⁶ Further, the consistently increasing support for the Open Science and Open Access movements speaks for itself.⁴⁷

We live in an era where technology allows us to share information at rates that could barely be dreamt of decades ago. From massive computer with minuscule processing powers, we have come to an era where any device can

⁴² Mike Masnick, ‘Reminder: Fair Use is a Right – And not ‘An Exception’ or ‘A Defense’ (TechDirt, February 23, 2015), *available at* <https://www.techdirt.com/articles/20150222/16392430108/reminder-fair-use-is-right-not-exception-defense.shtml> (Last visited on March 31, 2017); Mike Masnick, ‘Copyright Week: Our Lost Culture: What We Lose from Having Killed the Public Domain’ (TechDirt, January 14, 2015), *available at* <https://www.techdirt.com/articles/20140114/10565225874/copyright-week-our-lost-culture-what-we-lose-having-killed-public-domain.shtml>.

⁴³ Kartik Chawla, ‘Authors’ Guild v. Google – A Fair Use Victory, and a Chance for Introspection’ (SpicyIP, November 8, 2015), *available at* <https://spicyip.com/2015/11/authors-guild-v-google-a-fair-use-victory-and-a-chance-for-introspection.html> (Last visited on March 31, 2017).

⁴⁴ Glyn Moody, ‘Unpaywall: The Browser Add-on that Finds (Legal) Free Copies of Academic Papers You See as You Browse the Web’ (TechDirt, March 21, 2017), *available at* <https://www.techdirt.com/articles/20170319/02251236949/unpaywall-browser-add-on-that-finds-legal-free-copies-academic-papers-you-see-as-you-browse-web.shtml> (Last visited on March 31, 2017).

⁴⁵ Mike Masnick, ‘Disappointing: Elsevier Buys Open Access Academic Pre-Publisher SSRN’ (TechDirt, May 17, 2016), *available at* <https://www.techdirt.com/articles/20160517/13513134465/disappointing-elsevier-buys-open-access-academic-pre-publisher-ssrn.shtml> (Last visited on March 31, 2017).

⁴⁶ Glyn Moody, ‘Unpaywall: The Browser Add-on that Finds (Legal) Free Copies of Academic Papers You See as You Browse the Web’ (TechDirt, March 21, 2017), *available at* <https://www.techdirt.com/articles/20170319/02251236949/unpaywall-browser-add-on-that-finds-legal-free-copies-academic-papers-you-see-as-you-browse-web.shtml> (Last visited on March 31, 2017).

⁴⁷ Vasundhara Majithia, ‘Open Access IP Course Books’ (SpicyIP, September 15, 2016), *available at* <https://spicyip.com/2016/09/open-access-ip-course-books.html> (Last visited on March 31, 2017); Mike Masnick, ‘Copyright Week: Open Access as the Antidote to Privatizing Knowledge and Learning’ (TechDirt, January 15, 2014), *available at* <https://www.techdirt.com/articles/20140115/11022325887/copyright-week-open-access-as-antidote-to-privatizing-federally-funded-knowledge.shtml> (Last visited on March 31, 2017).

tap into the power of a literal, modern supercomputer over the Cloud.⁴⁸ The evolution of technology has led us to a democratisation of the means of content creation, with every individual now being capable of tasks that required entire industries.⁴⁹ Content creation, copying and reproduction are getting easier every day across industries, and the easier it gets to ‘copy’, the harder it will be to control ‘copying’. In such an era, a property-centric view of copyright can hobble the sharing of information and education from reaching its true potential. It is important, therefore, to reframe the balance between the private property discourse and the commons discourse in favour of the latter, particularly in the context of education, so that we can ensure as much access to information and education as is practically feasible. Putting profit before educational access, in such scenarios, is very much akin to putting the cart before the horse.

At this point, it must be noted that the Oxford University Press, Cambridge University Press and Taylor & Francis have withdrawn their suit after the Division Bench judgment, and have stated in their Joint Press Statement that, “*We look forward to working even more closely with academic institutions, teachers and students to understand and address their needs, while also ensuring that all those who contribute to and improve India’s education system—including authors and publishers—continue to do so for the long term.*”⁵⁰

The recognition granted to educational exceptions, to *the need for accessibility*, in the Division Bench judgment counts as a momentous victory in this regard. It is particularly important to note that the judgment adopts a perspective on fair use that sees it as a *right*, and not as a mere defence, which is a significant step forward for the commons discourse.

There are issues yet to be addressed, such as the test for what qualifies as the “*extent justified by the purpose*”, which shall hopefully be dealt with by the courts in the future in a similar view. Hopefully, this reframing of the discourse will see a wider application in the Intellectual Property Rights (IPR) jurisprudence as a whole, particularly in other areas as or more crucial than education, such as the pharmaceuticals industry.

⁴⁸ Oliver Chiang, *OnLive Wants to be Your Tablet’s Supercomputer in the Cloud*, FORBES (December 7, 2010), available at <https://www.forbes.com/sites/oliverchiang/2010/12/07/onlive-wants-to-be-your-tablets-supercomputer-in-the-cloud/#68f7b5573692> (Last visited on March 31, 2017).

⁴⁹ Yochai Benkler, *THE WEALTH OF NETWORKS*, 15 (Yale University Press 2006).

⁵⁰ Joint statement by Oxford University Press, Cambridge University Press and Taylor & Francis, (March 9, 2017), available at <http://fdslive.oup.com/asiaed/News%20Items%20and%20Images/Joint%20Public%20Statement.pdf>.

THE QUESTION OF AEROSPACE VEHICLES: IN SUPPORT OF DUAL LEGAL SYSTEMS FOR A DUAL PURPOSE CRAFT

*Marshall Mckellar**

ABSTRACT *World governments and military contractors have been developing aerospace vehicles (ASVs) for over seventy years. Today, there exists a renewed interest in the development and utilization of this technology. From the Air Force's X37-B spaceplane and DARPA's Hypersonic Technology Vehicle-2 (HTV-2), to Virgin Galactic's SpaceShipTwo, Reaction Engine's SkylonSpaceplane, XCOR's Lynx Mk II and India's Avatar Spaceplane, cutting-edge innovators are pursuing an aircraft capable of traversing the fringes of outer space with unprecedented frequency and efficiency. In order to facilitate the viability of this developing technology, space-faring states—and the international community as a whole—must have a thorough legal discussion concerning the most effective way to regulate these vehicles. This article first provides a brief history of aerospace vehicles—including their most recent developments. Next, it analyzes prominent legal uncertainties surrounding ASVs and their possible use as both aircraft and spacecraft; specifically, the delineation between airspace and outer space, the definition of “launch,” and the definition of “spaceobject”. Finally, this article argues that dual legal regimes—consisting of both international air law and space law based on a ‘Contract-for-Carriage Approach’—would most efficiently regulate the imminent use of this revolutionary technology on a global scale.*

* Senior Student Editor, Journal of Space Law; J.D. Candidate 2017, University of Mississippi School of Law. The author wishes to thank Professor P.J. Blount and Professor Jack Nowlin for their invaluable help and guidance with this article.

I. INTRODUCTION

“People have been spending their time for fifty years saying, ‘well if we just inspire enough and educate enough, the space frontier will be opened.’ Our fifty years are up. Steve Jobs did not sit around saying, ‘if only we inspire enough people to think computers are important, we’ll have a computer revolution;’ he just made one. I want us to have a frontier in space. I want to live in a society that has a frontier. If the only way to get that is to build it, then I’m gonna build it.”

—Jeff Greason, CEO and Founder of XCOR Aerospace¹

Imagine living in an age where sub-orbital flights become as frequent and affordable as connecting flights out of New York City. Imagine vehicles that burn non-toxic liquid fuels in reliable, piston-pump fed engines, capable of crossing continents or reaching low-earth-orbit in a matter of minutes.² Imagine having the option of watching the sun set behind your home planet without needing to be an astronaut or a multi-billionaire. Many would assume these ideas are exactly that: imaginary. However, what once existed only in humanity’s collective imagination is now quickly becoming a technologically and commercially viable reality.

World governments and military contractors have been developing aerospace vehicles (ASVs) for over seventy years. The 1970s and 80s saw sub-orbital jet projects such as the North American X-15 and the Rockwell X-30 steadily push the technological envelope forward, promising a future for dual-purpose ASVs. Today, there exists a renewed interest in the development and utilization of such craft. From the United States Air Force’s X37-B spaceplane³ and DARPA’s Hypersonic Technology Vehicle-2 (HTV-2),⁴ to

¹ Freethink, *Four Flights a Day. Five Days a Week.*, YouTube (October 11, 2016), <https://www.youtube.com/watch?v=HvMyVZjZZ7c&list=PLXthoedLVIdKtw2AIEdobDFbRIg-Cocbit&index=2>.

² *Linx Spacecraft*, XCOR AEROSPACE, <http://aerospace.xcor.com/reusable-launch-vehicles/lynx-spacecraft/> (Last visited on November 14, 2016).

³ Brian Weeden, *X-37B Orbital Test Vehicle Fact Sheet*, SECURE WORLD FOUNDATION (2012), https://swfound.org/media/1791/swf_x-37b_otv_fact_sheet_updated_2012.pdf (Last visited on September 22, 2016); Leonard David, *Mystery Mission: Air Force’s X-37B Space Plane Nears 1 Year in Orbit*, SPACE.COM (May 10, 2016), <http://www.space.com/32839-x37b-military-space-plane-one-year-mission-otv4.html> (Last visited on September 22, 2016).

⁴ Jerome Dunn, *Falcon HTV-2 (Archived)*, DARPA, <http://www.darpa.mil/program/falcon-htv-2> (Last visited on December 2, 2016).

Virgin Galactic's Space Ship Two,⁵ Reaction Engine's Skylon Spaceplane,⁶ XCOR's Lynx Mk II,⁷ and India's Avatar Spaceplane,⁸ governments and private entities alike are pursuing an aircraft capable of traversing the fringes of outer space with unprecedented frequency and efficiency. Although the prospect of aerospace vehicles is undeniably exciting, it begs the question of what international legal system would govern a vehicle capable of both intercontinental air transportation and delivering payloads into low-earth-orbit or beyond.

This article will first provide a brief history of aerospace vehicles—including their most recent developments in the United States (U.S.), Europe, and India. Next, it will analyze some prominent legal uncertainties surrounding ASVs and their possible use as both aircraft and spacecraft; specifically, the delineation between airspace and outer space, the definition of “*launch*,” and the definition of “*spaceobject*”. Finally, this article will argue that dual legal regimes—consisting of both international air and space law—would most efficiently regulate the imminent use of this revolutionary technology on a global scale. This article is by no means the first to advocate for a dual-regime approach. However, in addition to briefly summarizing pre-existing dual-regime approaches, it will advocate for a dual legal regime based on a unique ‘Contract-for Carriage Approach’.

II. THE AEROSPACE VEHICLE

A. HISTORY

For the purposes of this article, an aerospace vehicle is any vehicle capable of operating as both an aircraft in flight and a spacecraft “*built to operate in, or place a payload or human beings [in] outer space*”.⁹ The concept of the aer-

⁵ *Our Vehicles: These are the Vehicles that will take you to Space*, VIRGIN GALACTIC, <http://www.virgingalactic.com/human-spaceflight/our-vehicles/> (Last visited on December 2, 2016).

⁶ *Reaction Engines: The Engine that's Transforming Air & Space Flight*, REACTION ENGINES, <https://www.reactionengines.co.uk/sabre/> (Last visited on December 2, 2016).

⁷ *Linx Spacecraft*, *supra* note 3.

⁸ Varun Sharma, *ISRO Scramjet Engine Test: Here's what it Signifies for the Space Agency*, THE INDIAN EXPRESS (August 29, 2016), <http://indianexpress.com/article/technology/science/isros-scramjet-technology-why-is-it-important-for-the-space-agency-3000387/> (Last visited on March 6, 2017); Tomasz Nowakowski, *India to Launch its Reusable Spaceplane in May*, SPACEFLIGHT INSIDER (April 5, 2016), <http://www.spaceflightinsider.com/organizations/isro/india-launch-reusable-spaceplane-may/> (Last visited on March 6, 2017).

⁹ 51 U.S.C. § 5092(11)(A).

ospace vehicle developed not long after the end of WWII. Innovative pilots, engineers, and military leaders imagined an airplane capable of reaching the fringes of outer space.¹⁰ The first hurdle presented itself in the form of the sound barrier (mach 1). However, Chuck Yeager famously piloted the Bell X-1 to defeat this adversary in 1947. Within seven years, Yeager surpassed both mach-2 and mach-3 in the X-2.¹¹ By 1959 the United States Air Force and NASA had developed the X-15, an experimental sub-orbital jet that eventually surpassed mach-6.7 (4,000 mph).¹² Around this same time, the United States Air Force began developing scramjet (supersonic combustion ramjet) technology in order to compliment the already existing rocket-powered aircraft designs, hoping that the combination of rockets and scramjet engines would allow an aircraft to break through the atmosphere and traverse the lower reaches of outer space.¹³ Military contractors, research institutions, and government agencies alike pursued a feasible space-plane throughout the 1960s, fielding designs intended to help a vehicle reach up to mach-29 using air breathing engines.¹⁴ NASA even began applying scramjet designs for possible commercial transportation applications.¹⁵ At the dawn of the 1970s, NASA's Langley Hypersonic Propulsion Branch was established to experiment with scramjet powered airframes such as the X-24 spaceplane, resulting in documentation by the General Applied Science Laboratory of scramjet performance above mach-7 by 1978.¹⁶

One of the primary motivating factors behind the development of a space plane in the U.S. was the need for a more efficient, less expensive, and immediately reusable alternative to the space shuttle. Such capabilities “*promised to yield what economists call ‘social savings’ at exponential levels—that is, the generation of new and unforeseen opportunities for economic activities simply by having access to daily or weekly orbital flight*”.¹⁷ One of the proposed alternatives was an aerospace plane capable of taking off vertically using a combination of scramjets and rockets to reach orbital velocity.¹⁸ With the backing of United States agencies like Strategic Air Command, DARPA, the Tactical Air Command, Air Force Space Command, and the Navy, the United States’ interest in making a functioning aerospace vehicle

¹⁰ Larry Schweikart, *The Quest for the Orbital Jet: The National Aero-Space Plane Program, III THE HYPERSONIC REVOLUTION: STUDIES IN THE HISTORY OF HYPERSONIC TECHNOLOGY* (1983-1995) (1998), 13.

¹¹ *Id.* at 16.

¹² *Id.*

¹³ *Id.* at 13.

¹⁴ *Id.* at 14.

¹⁵ *Id.*

¹⁶ *Id.* at 16.

¹⁷ *Id.* at 23.

¹⁸ *Id.* at 18.

culminated in the establishment of the National Aero-Space Plane Program (NASP) in 1984. The purpose of NASP was to spearhead the pursuit of ASV technology.¹⁹ The NASP would pursue this elusive machine in many shapes and forms until the agency's eventual dissolution in the mid-1990s.²⁰ One of the NASP's primary focuses was an experimental orbital jet, designed by Rockwell International, called the X-30. This truly dual-purpose vehicle would be capable of reaching anywhere on the planet within two hours, or in the alternative, could replace the space shuttle as a fast and efficient means of reaching orbit. However, the X-30 allegedly never flew.²¹

Although the aerospace plane program lost momentum (and public interest) in the mid-90s, the technology did not disappear, in fact, it continued to advance—even after the lights were turned off on the NASP. Air Force Historian Dr. Larry Schweikart wrote,

the hypersonic hopes of putting a jet into orbit may, as of the late 1990s, merely be in the same formative stages as the dawn of the automobile age in the 1890s, or the emergence of the computer age in the 1960s. When—not if—the first jet eventually does go into orbit, it will have the same revolutionary effect on society and the world.²²

Recent developments in ASV technology suggest Dr. Schweikart's prediction is closer than ever to becoming a reality.

B. NOTABLE RECENT DEVELOPMENTS

Although the NASP failed to put an aircraft into orbit, both the commercial space industry and government/military developers have recently rekindled their interest in hypersonic aerospace vehicles. The past ten years have seen significant leaps forward in both airframe and propulsion technology, setting the stage for a rapid increase in the development and use of space-capable aircraft in military and commercial theatres on an international scale. Although countless designs and prototypes have been tested in the last decade, two notable examples of potential breakthroughs in ASV propulsion and airframe technology include DARPA's HTV-2, Reaction Engines' Skylon Spaceplane and India's Avatar Spaceplane.

¹⁹ *Id.* at 21.

²⁰ *Id.* at 20-39.

²¹ *Id.* at 39.

²² *Id.* at 351.

i. Darpa's Htv-2

At 7:45 a.m. on August 11, 2011, a Minotaur IV rocket launched from California's Vandenberg Air Force Base carrying a very unique payload.²³ As the rocket reached orbit, its payload fairings fell away and an arrowhead shaped object separated from the rocket, beginning a hypersonic return to the earth. Over the next nine minutes this craft—created by DARPA and named the HTV-2—hurdled over the Pacific Ocean at more than 13,000 miles per hour (mach-20).²⁴ As the unmanned aircraft approached this unprecedented velocity, its advanced design allowed the craft to recover from an uncontrolled roll caused by speed-induced shockwaves. However, the HTV-2 was forced to direct itself into the Pacific Ocean after its skin began to peel away under the intense heat and stress of hypersonic speed.²⁵ In the second of the two test flights administered by DARPA, HTV-2 successfully demonstrated that an aircraft could be controlled at speeds of mach-20 or above, representing a huge leap forward in the development of airframes for hypersonic vehicles.²⁶ According to DARPA Acting Director, Kaigham J. Gabriel,

“the initial shockwave disturbances experienced during second flight, from which the vehicle was able to recover and continue controlled flight, exceeded by more than 100 times what the vehicle was designed to withstand . . . that's a major validation that we're advancing our understanding of aerodynamic control for hypersonic flight.”²⁷

ii. Reaction Engine's Skylon Spaceplane

In addition to significant advances in the development of airframe design, the pursuit of an ASV has also seen recent leaps forward in propulsion. A U.K. company called Reaction Engines is currently developing the Skylon Spaceplane, which is a dual-purpose aerospace vehicle, capable of taking off horizontally (like a conventional jet) and reaching orbit without the aid of external rocket boosters or an assisted air launch (also known as, single-stage-to-orbit, or SSTO).²⁸ Moving beyond the scramjet technology

²³ *Falcon Hypersonic Technology Vehicle HTV-2*, GLOBALSECURITY.ORG, <http://www.globalsecurity.org/space/systems/x-41-htv-2.htm> (Last visited on October 5, 2016).

²⁴ *Id.*

²⁵ Tariq Malik, *Death of DARPA's Superfast Hypersonic Glider Explained*, SPACE.COM, <http://www.space.com/15388-darpa-hypersonic-glider-demise-explained.html> (Last visited on October 5, 2016).

²⁶ *Superfast Military Aircraft Hit Mach 20 Before Ocean Crash*, SPACE.COM, <http://www.space.com/12670-superfast-hypersonic-military-aircraft-darpa-htv2.html> (Last visited on October 5, 2016).

²⁷ Malik, *supra* note 26.

²⁸ *SABRE: How it Works*, REACTIONENGINES.CO.UK, <https://www.reactionengines.co.uk/sabre-engine/> (2015).

of the 70s and 80s, Reaction Engines is utilizing its dual-mode Synergetic Air-Breathing Rocket Engine (SABRE) to propel the Skylon to mach-25 and beyond.²⁹ This rocket engine is designed to cool incoming air from 1,000 degrees Celsius to negative 10 degrees Celsius in as little as 1/100 of a second, providing an oxidizing agent for the liquid hydrogen propellant in lieu of conventional liquid hydrogen.³⁰ The Skylon would ideally operate in “*air breathing mode*” until reaching mach-5—eliminating the need for over 250 tons of liquid oxygen.³¹ At this point, the SABRE would switch to a “*conventional rocket mode*”, using on-board liquid oxygen and liquid hydrogen to propel the vehicle towards mach-25 and into orbit.³² This technology has attracted many international investors within the European Space Agency,³³ and has even garnered affirmative support from the United States Air Force under a cooperative research and development agreement.³⁴

iii. India’s Avatar Spaceplane

United States and European entities are not the only big players pursuing a functional aerospace vehicle. The Indian Space Research Organization (ISRO)—one of the fastest growing space agencies in the world—is currently developing its own dual-purpose ASV with fantastic success. On August 28, 2016, ISRO’s Advanced Technology Vehicle (ATV) successfully lifted from the Satish Dhawan Space Center in Sriharikota.³⁵ Equipped with two experimental scramjet engines, the ATV surpassed six times the speed of sound, making India one of only four nations to reach mach-6 in the history of flight.³⁶ According to the ISRO, “*the successful technology demonstration of air-breathing scramjet engines in flight by ISRO . . . is a modest yet important milestone in its endeavor to design and develop advanced air-breathing engines[,] including engines for ISRO’s future space transportation system.*”³⁷ The ISRO is currently testing its scramjet engines for use on its Avatar Spaceplane, an ASV (similar to the Skylon) that will use a

²⁹ *Id.*

³⁰ Peter B. de Selding, *AFRL Gives Seal of Approval to British Air-breathing SABRE Engine Design*, SPACENEWS.COM (2015), <http://spacenews.com/afrl-gives-seal-of-approval-to-british-air-breathing-engine-design/> (Last visited on September 28, 2016).

³¹ *SABRE: How it Works*, *supra* note 29.

³² *Id.*

³³ Peter B. de Selding, *Europe’s Next-gen Rocket Design Competition Had Surprise Bidder*, SPACENEWS.COM (2012), <http://spacenews.com/europes-next-gen-rocket-design-competition-included-surprise-finalist/> (Last visited on September 28, 2016).

³⁴ *Id.*

³⁵ Sharma, *supra* note 9.

³⁶ *Id.*

³⁷ Stephen Clark, *India Tests Scramjet Demonstrator over Bay of Bengal*, SPACEFLIGHT NOW (August 30, 2016), <https://spaceflightnow.com/2016/08/30/india-tests-scramjet-demonstrator-over-bay-of-bengal/> (Last visited on March 6, 2017).

combination of ramjet, scramjet and cryogenic engines to propel the Avatar to the edge of space.³⁸ The Avatar will take off horizontally from an airstrip using turbo-ramjet engines until it reaches cruising altitude.³⁹ Next, its scramjet system would accelerate the vehicle up to mach-8, at which point an oxygen collection system would condense atmospheric oxygen into liquid oxygen for use in its final, rocket powered flight phase.⁴⁰ If the Avatar performs as planned, ISRO could potentially deliver up to 1,000 kilogram payloads into low-earth-orbit for as little as \$67 per kilo.⁴¹ This capability would make India incredibly competitive in the international launch market, potentially changing the way humans reach space.

In fact, many new and promising aerospace vehicles can be found with a simple google search. For example, Virgin Galactic's second SpaceShipTwo recently completed its first successful free-flight—the first SpaceShipTwo experiencing a devastating accident in 2014⁴²—while XCOR Aerospace's Lynx Mark II may begin carrying passengers to the fringes of space within a year.⁴³ Although advances in ASV technology do not always receive front-page media attention, the future will undeniably see a massive increase in the use of space-faring aircraft. In order to facilitate the viability of this developing technology across the globe, space-faring states and the international community as a whole must have a thorough legal discussion concerning the most effective way to regulate these vehicles.

III. LEGAL UNCERTAINTIES SURROUNDING AEROSPACE VEHICLES

At the peak of the NASP era, aerospace scholars and government/military experts attempted to navigate the legal uncertainties of an ASV. However, despite various special colloquiums, reports, and hearings, very little was

³⁸ Sharma, *supra* note 9.

³⁹ Mark Williams Pontin, *India's space Ambitions Soar*, MIT TECHNOLOGY REVIEW (July 30, 2007), <https://www.technologyreview.com/s/408323/indias-space-ambitions-soar/> (Last visited on March 6, 2016).

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² Amy Thompson, *SpaceShipTwo Completes its First Successful Free-Flight*, INVERSE (December 3, 2016), <https://www.inverse.com/article/24684-virgin-galactic-s-vss-unity-completes-first-successful-free-flight>. Virgin Galactic's first SpaceShipTwo crashed in October, 2014 due to pilot error, see Tariq Malik, *Deadly SpaceShipTwo Crash Caused by Co-Pilot Error: NTSB*, SPACE.COM (July 28, 2015), <http://www.space.com/30073-virgin-galactic-spaceshiptwo-crash-pilot-error.html>.

⁴³ Mike Wall, *Private Lynx Space Plane Could Take Off in Early 2017*, SPACE.COM (April 5, 2016), <http://www.space.com/32463-xcor-lynx-space-plane-2017.html>; *Our Hero: XCOR Lynx*, XCOR.COM (2016), <http://spaceexpeditions.xcor.com/spacecraft/>.

decided concerning how an ASV would fit into existing frameworks of air or space law. Could an ASV operate under the current air or space law regimes? Should it? Or, should a completely new regime be created to regulate a vehicle that has not officially come into existence yet? In the quarter-century since, the same uncertainties and questions remain largely unaddressed. Because fully addressing the depth and breadth of these questions would require an entire collection of detailed studies, this article will briefly address three of the main recurring issues surrounding the regulation of ASVs: the delineation between air space and outer space, the definition of “*launch*,” and the definition of “*space object*”.

A. THE DELINEATION BETWEEN AIR SPACE AND OUTER SPACE

When pursuing an appropriate legal regime for ASVs, experts have often proposed to create a regulatory framework based on an ASV’s location. This means that either air law or space law would apply depending on whether the vehicle is operating in airspace or outer space. This method would hold promise, save that one of the earliest and most debated questions arising since the dawn of the space era concerns the delineation between airspace and outer space.⁴⁴ Despite endless debate and a seemingly infinite plethora of possible clarifications for this elusive boundary, no official legal definition has been adopted by the international community.⁴⁵ However, this question is extremely relevant when deciding how to regulate a vehicle capable of traversing both realms. Several proposed methods of defining this boundary include the Von Karman Line method, the Lowest Possible Orbit method, and the Earth Entry Interface method.⁴⁶

i. Von Karman Line Method

Possibly the most famous delineation method proposed is the Von Karman Line: established by the (non-governmental) Federation Aeronautique Internationale (FAI) at 275,000 feet above the surface of the earth. This specific height is significant because it is roughly where the force of aerodynamic lift gives way to centrifugal force.⁴⁷ However, this method has not been adopted by any state government and has been criticized by the United

⁴⁴ Theodore W. Goodman, *To the End of the Earth: A Study of the Boundary Between Earth and Space*, 36(1) JOURNAL OF SPACE LAW 87 (2010).

⁴⁵ *Id.* at 88.

⁴⁶ *Id.* at 91-94.

⁴⁷ Stanley B. Rosenfield, *Where Air Space Ends and Outer Space Begins*, 7(2) JOURNAL OF SPACE LAW 137, 140 (1979).

States Department of Defense as possibly limiting the development of future high-altitude aircraft.⁴⁸

ii. Lowest Possible Orbit Method

A more regularly applied understanding of the boundary between air and space is the Lowest Possible Orbit Method, placing the beginning of space at the lowest possible orbit of a satellite.⁴⁹ Article II(1) of the Registration Convention states, “*When a space object is launched into earth orbit or beyond, the launching State shall register the space object by means of an entry in an appropriate registry which it shall maintain . . .*”.⁵⁰ The information required upon registration includes the space object’s “*basic orbital parameters*”, such as perigee, apogee, inclination, and nodal period.⁵¹ Renowned scholar, Bin Cheng, writes that the language used in Articles II and IV of the Registration Convention supports the lowest possible orbit method:

this article really serves to confirm that ‘objects launched into earth orbit or beyond’ are in fact ‘space objects,’ and thereby implies that outer space does begin where satellites are capable of completing a full or whole orbit around the earth, since it is calling any object that is capable of going into any earth orbit, even one with the lowest possible perigee a ‘space object.’⁵²

Cheng suggests that a height as low as 96 kilometers likely constitutes outer space, gaining surety with altitude until surpassing the “*definite*” point of 130 kilometers.⁵³ Many scholars believe that the Lowest Possible Orbit method is steadily becoming an international custom, evidenced by growing state practice.⁵⁴ According to Vladimir Kopal, “*this meaning has in fact been attributed to outer space by all space faring nations and has been also tacitly recognized by other nations.*”⁵⁵ However, the Lowest Possible Orbit

⁴⁸ Goodman, *supra* note 45, at 99.

⁴⁹ *Id.* at 93.

⁵⁰ Convention on the Registration of Objects Launched into Outer Space, Art. II(1), January 14, 1975, 28 U.S.T. 695, 1023 U.N.T.S. 15.

⁵¹ *Id.* at Art. IV(1).

⁵² Bin Cheng, “*Space Objects*,” “*Astronauts*” and Related Expressions, 34 PROC. COLLOQ. L. OUTER SPACE 17, 19 (1991).

⁵³ *Id.* at 20.

⁵⁴ Vladimir Kopal, *Issues Involved in Defining Outer space, Space Object and Space Debris*, 34 PROC. COLLOQ. L. OUTER SPACE 38, 40 (1991); see also, Carl Q. Christol, *Air and Space Transit; International Law and Space Law: Clarification of Law and Policy*, 34 PROC. COLLOQ. L. OUTER SPACE 28, 29 (1991); Cheng, *supra* note 53, at 20; Goodman, *supra* note 45, at 93.

⁵⁵ Kopal, *supra* note 55, at 40.

method has also received criticism due to its arbitrary nature.⁵⁶ Technology will almost inevitably allow future satellites to successfully orbit the earth at lower perigees, thus changing the definition—to the military’s distaste—of where national sovereignty ends and space begins.⁵⁷

iii. Earth Entry Interface Method

Some of the most logical of the proposed delineation methods center around the Earth Entry Interface, or “*the point at which a space craft returning to Earth is considered to be reentering the Earth’s atmosphere*”.⁵⁸ Defined at approximately 400,000 feet (120 kilometers), this is the altitude at which an object reentering the atmosphere will begin to encounter atmospheric resistance.⁵⁹ The Earth Entry Interface is fairly promising given that it is globally consistent and “*as the name implies, marks a change in the physics of the space flight*.”⁶⁰

Despite potentially promising means for defining the limits of outer space, space-faring super powers like the United States have openly discouraged adopting concrete definitions, voicing concerns that a universal boundary would result in undesirable/unforeseeable restraints on the military’s use of outer space.⁶¹ Space-faring nations fear the consequences of deciding once-and-for-all where their national sovereign airspace ends.⁶² Consequently, it is highly unlikely that an official definition will ever surface from the international community, which makes it especially difficult to create a legal regime for ASVs based on their location alone.

B. THE DEFINITION OF “LAUNCH”

Although the idea of regulating an ASV based on its location remains open to discussion, there is also a movement suggesting ASVs should be regulated in accordance with their primary function/purpose. Absent a defined boundary between air and space, it is unclear whether an ASV would fall under existing air or space law, seeing as many ASV designs will not “*launch*,” per se, but take-off horizontally and operate as an aircraft for varying portions of a mission. Nearly every United Nations (U.N.) space treaty includes the terms “*launch*” or “*launching*” in key Articles relating to the definition and

⁵⁶ Goodman, *supra* note 45, at 93.

⁵⁷ *Id.*

⁵⁸ *Id.* at 95.

⁵⁹ *Columbia Accident Investigation Board: Report Synopsis*, SPACEFLIGHTNOW.COM, <http://spaceflightnow.com/columbia/report/011synopsis.html> (Last visited on January 18, 2010).

⁶⁰ Goodman, *supra* note 45, at 95.

⁶¹ *Id.* at 100.

⁶² *Id.* at 101.

regulation of space objects.⁶³ This has led experts like Stephen Gorove to ask:

Would such a vehicle have to be “*launched*” to be regarded as a “*space object*?” Should the fact of launching make a difference? Is the meaning of “*launch*” crucial? Should the aerospace plane be regarded as a space object throughout its flight, or more precisely, should the Liability Convention’s provision be applicable to the flight of the aerospace plane in the airspace or in the outer space?⁶⁴

Article I of the Liability Convention establishes that, in order for there to be liability for damage caused by a space object, there must be a “*launching state*”.⁶⁵ Article I defines a “*launching state*” as the state which launches the object, procures the launch, from whose territory an object is launched, or from whose facility an object is launched. However, the term “*launching*” is not defined other than that “*launching*” includes “*attempted launching*”.⁶⁶ Absent a clear definition of “*launch*,” some scholars suggest that the best policy choice would be to apply air law to an ASV if it is used primarily for point-to-point transportation on earth, and apply space law only when the vehicle enters outer space.⁶⁷ However, this approach would require a defined boundary between air and space.

On the other hand, had the drafters of the Liability Convention meant for the manner of a “*launch*” to hold significance, perhaps they would have defined it clearly. If “*the manner in which the object ascends*” does not hold legal significance, terms such as “*take-off*” or “*lift-off*” could potentially have the same effect.⁶⁸ Even absent a clear definition of “*launch*,” treaties like the Liability Convention may well apply to an ASV, especially considering they applied to the Space Shuttle.⁶⁹ Despite flying and landing like a conventional aircraft upon re-entry, the Shuttle’s primary function/purpose was to

⁶³ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, Arts. VII, VIII, X, January 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter, “Outer Space Treaty”]; Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space, Art.1-6, April 22, 1968, 19 U.S.T. 7570, 672 U.N.T.S. 119 [hereinafter, “Rescue Agreement”]; Convention on International Liability for Damage Caused by Space Objects, Arts. I-XII, XIV, XV, XVII, XXI, March 29, 1972, 24 U.S.T. 2389, 961 U.N.T.S. 187 [hereinafter, “Liability Convention”]; Registration Convention, Arts. I, II, IV, V.

⁶⁴ Stephen Gorove, *Toward a Clarification of the Term ‘Space Object’ - An International Legal and Policy Imperative?*, 21(1) JOURNAL OF SPACE LAW 11, 17 (1993).

⁶⁵ Liability Convention, Art. I.

⁶⁶ *Id.*

⁶⁷ Goodman, *supra* note 45.

⁶⁸ *Id.*

⁶⁹ Stephen Gorove, *Legal and Policy Issues of the Aerospace Plane*, 16(2) JOURNAL OF SPACE LAW 147, 152 (1988).

conduct missions in earth orbit, reinforcing its place within the framework of space law despite functioning partially as an aircraft.⁷⁰ It is argued that, “any recognized definition of launch inherently incorporates an intention to place the launch vehicle, crew, flight participants, or payload from earth into a suborbital trajectory, earth orbit, or otherwise in space.”⁷¹ Stephen Gorove writes:

What appears important, however, is that the act of launching in the sense of lift off or take off or its “*attempt*” must in fact take place before an object may be regarded as a space object, assuming of course that the purpose of the intended activity was to put the object in orbit around the earth or beyond and there was a realistic expectancy of achieving it.⁷²

However, applying space law to a vehicle simply because it “*launches*,” “*lifts-off*,” or “*takes-off*” would potentially be “*unwise*” if the vehicle’s primary purpose—requiring passage through only the lowest fringes of outer space—was point-to-point Earth transportation.⁷³

This idea is reinforced by Articles I & II of the Liability Convention, which hold a launching state liable for damage caused by both “*launching*” and “*attempted launching*.”⁷⁴ In other words, even if an object is launched and falls back to Earth before reaching outer space, the launching state is held liable for any damages. The vehicle’s location or mode of flight is irrelevant under this Convention when approached from the standpoint of its mission’s purpose, that is, conducting activities in outer space.

C. THE DEFINITION OF “SPACE OBJECT”

Also involving the question of an object’s purpose is perhaps the most important uncertainty surrounding aerospace vehicles: would an ASV constitute a “*space object*”? If an ASV is purely an aircraft designed to speed up point-to-point transportation, international air law could potentially regulate what amounts to little more than an improved version of current commercial air transportation. However, when dealing with a truly dual-purpose ASV—capable of both conventional air transportation and executing missions in outer space—one must determine whether such a machine would

⁷⁰ *Id.* at 149.

⁷¹ Sarah M. Langston, *Suborbital Flights: A Comparative Analysis of National and International Law*, 21 JOURNAL OF SPACE LAW 299, 319 (2011).

⁷² Goodman, *supra* note 45.

⁷³ *Id.* at 101.

⁷⁴ Liability Convention, Arts. I, II.

fall under the dominion of space law treaties like the Outer Space Treaty, Liability Convention, and Registration Convention. Central to this determination is whether an ASV would constitute a “*space object*”. However, there is no detailed definition for this term. Both the Liability Convention and the Registration Convention define a “*space object*” as: “*The Term ‘space object’ includes component parts of a space object as well as its launch vehicle and parts thereof.*”⁷⁵ As evidenced by this circular language, there is no officially recognized definition of a “*space object*”. Nonetheless, Bin Cheng proposes that a “*spaceobject*” simply equates with an “*object launched into outer space*”,⁷⁶

On [the above] assumption, the various treaties drafted by the United Nations appear superficially to be fairly consistent, inasmuch as the term “space object” figures in all of them. Thus the Astronauts Agreement in both its Title and Paragraph 1 of its Preamble speaks of “objects launched into outer space”, while its Article 5 repeatedly uses the term “space object”. The Liability Convention too adheres most faithfully to the term “space object,” and includes it in its Title.⁷⁷

Many experts agree with this assertion. For example, Vladimir Kopal writes, “*in the doctrine of space law, the term ‘space object’ has been used for all man-made instrumentalities launched into outer space and moving in orbits around the Earth or on other trajectories, in opposition to natural bodies moving in the universe – stars, planets, asteroids, and meteoroids.*”⁷⁸

The Registration Convention uses the terms “*space object*” and “*objects launched into outer space*” interchangeably in Articles I to VI. However, Article II only requires “*space objects launched into earth orbit or beyond*” to be registered.⁷⁹ Does this mean some objects launched into outer space are not necessarily space objects? More than likely, the purpose of this distinction is simply to exclude from the registration requirement any “*space objects*” not “*launched into earth orbit or beyond*”.⁸⁰ Although it is tempting to extract a distinction between the two terms from the language of Article II, nothing in the Registration Convention as a whole indicates an affirmative intent to differentiate between the two terms. Therefore, when

⁷⁵ Registration Convention, Art. I; Liability Convention, Art. I.

⁷⁶ Cheng, *supra* note 53, at 17; referencing The Outer Space Treaty, Arts. VII, VIII; Liability Convention, Art. I; Rescue Agreement, Art. 5.

⁷⁷ *Id.*

⁷⁸ Kopal, *supra* note 55, at 40.

⁷⁹ Registration Convention. Art. II.

⁸⁰ Cheng, *supra* note 53, at 18.

attempting to define “*space object*”, we are left with its apparent interchangeable twin: “*objects launched into outer space*”.⁸¹

One may ask whether an ASV would fall under the registration requirement if it simply skirts the edge or only briefly enters orbit to deliver a payload? A straightforward reading of Article II would suggest that registration is not required. Though, on the other hand, nowhere does the Registration Convention expressly state that an object must be intended to “*complete*” an orbit before the registration requirement activates.⁸² However, this question was arguably answered within weeks of the Outer Space Treaty’s entry into force when the Soviet Union began testing their Fractional Orbital Bombardment System (FOBS).⁸³ Although some considered this a direct violation of the Treaty, the United States quickly confirmed that the use of an FOBS would not amount to a Treaty violation because a missile launched into space “*was not placed ‘in orbit’ until there was an orbit (i.e., at least one complete circle of the globe) and a FOBS—as any very long-range inter-continental missile—would be fired back to a target on earth before completing an orbit.*”⁸⁴

Nonetheless, when looking at the language from the U.N. space treaties alone, one is often left with more questions than answers concerning not only what constitutes a “*space object*” but also what constitutes a “*launch*” and what sort of objects require registration. Despite ambiguity arising from decades-old international space policy (based on even older technology), some States are beginning to draft national space legislation that defines a vehicle based solely on its primary purpose.⁸⁵ However, a truly dual-purpose ASV would potentially have a primary purpose of both speeding up international transportation and providing a fast/efficient means of delivering payloads to orbit, raising the question as to which legal regime should take precedent when dealing with this new technology.

IV. AIR LAW APPROACH

Assuming the scope of ASV activities consisted of international carriage for reward, their use for the purpose of point-to-point transportation would

⁸¹ *Id.* at 19.

⁸² *Id.*

⁸³ Rahmond L. Garthoff, *Banning the Bomb in Outer Space*, 5 INTERNATIONAL SECURITY 25, 38 (1980).

⁸⁴ *Id.*

⁸⁵ Langston, *supra* note 72, at 321, 330-31.

potentially have a sufficient regulatory home in conventional air law.⁸⁶ This legal regime already enjoys the benefits of well-established case law, endless scholarly interpretation, in-depth expert analysis, and nearly universal application from North America and Europe to Asia. However, applying air law would require a presumption that ASVs act only as enhanced versions of conventional passenger aircraft, ignoring arguably the most crucial service ASVs are hoped to provide, that is, efficient space travel. Despite providing a clear liability and regulatory framework for point-to-point international transportation, “*Warsaw and supplementary Conventions currently does not apply to space objects nor does it apply to space related activities.*”⁸⁷ Air law is simply incapable of addressing questions of liability, registration, and proper conduct concerning an ASV’s space-faring potential. It is this author’s position that such a legal shortcoming would not only stunt the growth of ASV related development and commerce, but also have potentially negative impacts on the security of the space environment. Under-regulating space-capable ASVs would demonstrate a disregard for the obligations enumerated under Article 9 of the Outer Space Treaty.⁸⁸ Even when many experts were considering ASV technology for commercial air transportation purposes only, there remained skepticism as to the sufficiency of air law to deal with the possible scope of ASV capability:

if future technological developments were to create an aerospace vehicle capable of moving freely in the air like an aircraft and also moving at will in outer space, the whole range of variables distinguishing air law from space law and the applicability of these laws to given situations may have to be re-examined.⁸⁹

In light of recent technological developments paving the way for ASVs to reach orbit, it becomes apparent that conventional air law alone is hardly the most effective fit for these vehicles.

⁸⁶ The Convention for the Unification of Certain Rules Relating to International Carriage by Air, Art. I, October 12, 1929, ICAO Doc. 7838, 9201, 137 L.N.T.S. 11 (1933), 49 Stat 3000 (1929) [hereinafter, “Warsaw Convention”]; The Convention for the Unification of Certain Rules for International Carriage by Air, Art. I, May 28, 1999, ICAO Doc 9740 [hereinafter, “Montreal Convention”].

⁸⁷ Langston, *supra* note 72, at 312.

⁸⁸ Outer Space Treaty. Art. IX. This article imposes an obligation that all States party to the Treaty conduct all their space activities in “*due regard*” to the interests of other States.

⁸⁹ Gorove, *supra* note 65, at 149 (citing THE SPACE SHUTTLE AND THE LAW 2-3 (S. Gorove ed. 1980)).

V. SPACE LAW APPROACH

In much the same way, regulating dual-purpose ASVs exclusively under conventional space law would likely yield similarly lopsided results. Although the U.N. space treaty regime⁹⁰ enjoys the benefit of nearly universal application, with established parameters for liability, registration, and conduct for States and their space-faring objects, there are no space treaty provisions addressing anything close to international commercial transportation. This leads to effective elimination of one of the primary motivating factors for states/companies to develop ASV technology. Neither air law, nor space law alone is sufficient in scope to satisfy the needs of a dual-purpose ASV. The conversation needs to untangle its antlers from the decades-old gridlock of ambiguous definitions, take a step back, and approach this question from a big-picture perspective.

VI. IN SUPPORT OF DUAL LEGAL REGIMES FOR A DUAL-PURPOSE VEHICLE

As previously discussed, there is great uncertainty as to which legal regime should govern ASVs. Basing this determination on a vehicle's location, method of leaving the ground, and even its identity as an aircraft or spacecraft has yielded few—if any—definitive results and a host of unanswered questions. Short of accomplishing the highly difficult—if not impossible—task of creating a completely new legal regime, it would seem neither conventional air law nor space law alone has the sufficient scope to regulate the breadth of possible ASV activity or capability. Therefore, it is this author's contention that a dual legal regime—consisting of both international air law and space law—would most effectively regulate ASVs, regardless of their origin, point of development, or intended purpose.

A. THE INTENT APPROACH

In his written submission for the 34th Colloquium on the Law of Outer Space, Carl Christol advocated for an innovative approach to regulating ASVs consisting of both air and space law regimes that depended exclusively on the “*purpose and effects of the hybrid vehicle*”:

This new perspective will emphasize the relevance of criteria able to allocate to a functioning aerospace plane a regime of either air law or space law. The allocative criteria are two in number. First, it will be

⁹⁰ Outer Space Treaty, *supra* note 64.

necessary to identify the intended purpose or purposes of the hybrid vehicle. The second aspect to be examined is the effect or the effects of hybrid vehicular activity. Further, reference can be made, as needed in appropriate cases, to both purposes and effects. In practice this will mean that if the purposes and effects of the hybrid vehicle relate to air travel, it will be an aircraft. If its purpose (based on the owner's intent) is to enter into orbit then it would be subject to the regime of space law.⁹¹

This approach regulates each individual ASV based on its owner's intent: vehicles intended for space travel are placed under the space law regime, while vehicles intended for point-to-point transportation are placed under the air law regime.⁹² The Federal Aviation Administration (FAA) has already applied a similar approach when applying either space law or air law to a vehicle based on the purpose of its mission. For example, in 2013 the FAA determined that Paragon Space Development Corporation's use of its World View commercial space tourism vehicle (a high-altitude balloon capable of reaching an altitude of 30 kilometers) fell under the jurisdiction of Title 51 of the United States Code⁹³ as a vehicle "*built to operate in outer space*" and launched "*in a suborbital trajectory*".⁹⁴ While expressly stating no intention to address whether the altitude of 30 kilometers constitutes outer space, the FAA recognizes that water and blood would boil at World View's maximum operating altitude, requiring the vehicle to be space-qualified in much the same way as components of the International Space Station.⁹⁵ However, the FAA emphasized that, if the balloon were not operating "*at an altitude where it needs to be built to operate in outer space*", domestic aviation law would apply.⁹⁶ The FAA analogized this approach to how Virgin Galactic's WhiteKnightTwo carrier aircraft and its detachable SpaceShipTwo suborbital rocket fall under space law only when the rocket is actually launched from its carrier in a suborbital trajectory.⁹⁷ However, the carrier and rocket combo fall under the jurisdiction of domestic aviation law when the mission

⁹¹ Christol, *supra* note 55, at 30.

⁹² *Id.*

⁹³ 51 U.S.C. §§ 50902(7)(A), (11)(A) (2010).

⁹⁴ Letter from Mark W. Bury, Assistance Chief Counsel for Int'l Law, Fed. Aviation Admin., to Pamela L. Meredith, Attorney at Law, Zuckert, Scoutt & Rasenberger, LLP (September 26, 2013) (on file with the Federal Aviation Administration), *available at* [https://www.faa.gov/about/office_org/headquarters_offices/age/pol_adjudication/age200/interpretations/data/interps/2013/meredithzuckertscoutt&rasenberger%20-%20\(2013\)%20legal%20interpretation.pdf](https://www.faa.gov/about/office_org/headquarters_offices/age/pol_adjudication/age200/interpretations/data/interps/2013/meredithzuckertscoutt&rasenberger%20-%20(2013)%20legal%20interpretation.pdf).

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ *Id.*

does not include SpaceShipTwo's ignition.⁹⁸ Similarly, aviation law applies to some aircrafts (F-104s & MiGs) that are capable of surpassing 30 kilometers, seeing as these aircrafts "*are not designed, tested, or built to operate in outer space for any period of time, let alone for the length of time that Paragon intends to operate its vehicle*".⁹⁹

Applying such an approach to all ASVs would arguably enjoy the benefits of already developed legal concepts, avoid the harrowing notion of developing a new regime from scratch, fill the legal vacuum created by singularly applying air or space law, and accommodate future ASV evolutions.¹⁰⁰ However, what determines an owner's intent for each mission? Could not the subjective nature of intent potentially limit the enforceability of this dual legal regime? Christol argues that intent can be implied based on where an ASV goes and what it does. However, he does not address how one determines an ASV operator's intent. Furthermore, what legal regime would apply when an ASV mission inevitably fails prior to reaching its destination or accomplishing its mission objective? Finally, how would one classify a truly dual-purpose ASV under this approach? Neither space law nor air law alone sufficiently covers a vehicle intended for both air and space related purposes.

B. THE CONTRACT-FOR-CARRIAGE APPROACH

i. Overview

Although the intent approach to implementing a dual-legal regime holds promise, applying an ambiguous standard to determine the purpose—and thus, the applicable legal regime—of an ASV would likely prove unreliable at best, even when considering a vehicle's conduct. The magic of truly dual-purpose ASVs is their potential for both highly efficient point-to-point transportation and delivering payloads into earth-orbit and beyond. Applying an insufficient or unduly ambiguous legal framework to this class of vehicles will inevitably slow their development and use in commerce. Therefore, it is essential that ASVs have the opportunity to operate at their maximum potential in both air and space related industries. The only way to efficiently accomplish this objective is by allocating each ASV mission to the legal regime that best regulates the activities at hand. Therefore, this author proposes implementing a dual legal approach for ASVs based on a Contract-for-Carriage Approach. This entails allocating either air law or space law to an ASV on a mission-by-mission basis, determined by the content of its

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ Christol, *supra* note 55.

contract for use/carriage. Nearly every international commercial flight is conducted under contracts for carriage and regulated by International conventions, like the Warsaw Convention, the Hague Protocol, and the Montreal Convention.¹⁰¹ Likewise, any legitimate government agency or private space-launch company delivers payloads to earth-orbit under similar contracts for carriage.¹⁰² For the purposes of allocating missions to the appropriate legal regime, a contract for the carriage of passengers from London to New York can hardly be mistaken for a contract to deliver military satellites into orbit, and vice versa.

ii. Questions

However, what happens when an ASV conducts a mission involving both air and space related objectives? If a vehicle is capable of both delivering payloads to orbit and delivering passengers across the planet, could it not potentially conduct both activities under the same contract for carriage? In an attempt to address this same question from the intent approach, Christol writes,

In the case where there is both an aviation purpose and an outer space purpose the authorizing State (in the case of a space launch a launching state) would be responsible for the effects of the subsequent activities. To be taken into account in measuring the responsibility of the operators of the different types of vehicles are subjective considerations consisting of the purposes for which the vehicle is to be used and the objectively measured effects of such use. The objective performance of a hybrid vehicle when joined with the subjective purpose of the mission of such a vehicle can provide a valid theoretical basis for the law of international aerospace activity.¹⁰³

As evidenced by the above excerpt, tackling the question of simultaneous dual-purpose missions is potentially complicated, revealing the difficult nature of reconciling two separate legal regimes with a class of vehicles that will inevitably blend the realms of air and space forever. For the purposes of the Contract-for-Carriage Approach, this author suggests allocating either air or space law to a specific ASV mission in a tiered system. Seeing as the

¹⁰¹ Warsaw Convention, Montreal Convention, *supra* note 87.

¹⁰² Kelsey D. Atherton, *Air Force Turns to SpaceX and Orbital ATK to Build New Rockets for Military Satellite Launches*, POPULAR SCIENCE (2016), <http://www.popsci.com/air-force-turns-towards-silicon-valley-to-launch-satellites>; Charley Riley, *SpaceX Just Landed a Coveted \$83 Million Military Contract*, CNN MONEY (2016), <http://money.cnn.com/2016/04/28/news/spacex-military-contract-elon-musk/>.

¹⁰³ Christol, *supra* note 55, at 30.

hypothetical delivery of both a payload to orbit and passengers to the ground cannot be executed simultaneously, the Contract-for-Carriage Approach would apply both air law and space law consecutively as it corresponds with the order of objectives outlined in the contract for carriage.

The next obvious question under this approach is what happens when an ASV collides with an orbiting satellite while conducting the international carriage of passengers? Article III of the Liability Convention creates a fault-based liability regime “*in the event of damage being caused elsewhere than on the surface of the Earth to a space object of one launching State or to persons or property on board such a space object by a space object of another launching State . . .*”¹⁰⁴ Although this language covers collisions between two “*space objects*”,¹⁰⁵ what happens in the event of a collision between a space object in orbit (like a satellite) and an ASV conducting activities as an aircraft? The Warsaw/Hague/Montreal regime could potentially cover an ASV operator’s liability for the death or injury of passengers.¹⁰⁶ However, the air law regime does not address damage to space objects. Could the fault-based liability regime implemented under Article III of the Liability Convention then apply to both the ASV and the satellite?¹⁰⁷ This author argues in the affirmative.

For example, if an ASV carrying passengers collides (due to its fault) with a satellite in orbit, the ASV’s operator would be liable for damage to the space object under the Liability Convention, and further liable for the death/injury of its passengers under conventional air law. On the other hand, if a collision occurs due to the space object operator’s fault, it could be held liable for damages incurred upon the ASV. The ASV’s operator could then limit its liability—under Article 21 of the Montreal Convention—for damages exceeding 100,000 Special Drawing Rights that are “*solely due to the negligence or other wrongful act or omission of a third party*”.¹⁰⁸ From a public policy perspective this approach would help protect the operators of orbiting space objects, while also helping to ensure responsible mission planning on the part of ASV operators.

Furthermore, the very nature of this subject begs the question of whether passengers on sub-orbital or even orbital commercial flights would/should attain astronaut status for the purposes of the Outer Space Treaty¹⁰⁹ and

¹⁰⁴ Liability Convention, Art. III.

¹⁰⁵ *Id.*

¹⁰⁶ Montreal Convention, Art. 17; Hague Protocol, Art.17; Warsaw Convention, Art. 17.

¹⁰⁷ Liability Convention, *supra* note 64.

¹⁰⁸ Montreal Convention, Art. 21(2)(b).

¹⁰⁹ Outer Space Treaty, Art. V.

the Rescue Agreement²¹¹⁰ However, as previously admitted, addressing every issue involving ASVs and their potential uses would require much larger work. The purpose of this article is simply to provide an introduction to contemporary developments in ASV technology, outline several of the basic legal uncertainties traditionally surrounding their use, and provide the beginnings of an argument for the application of dual legal regimes based on a Contract-for-Carriage Approach. Naturally, interface problems will arise when applying two legal regimes simultaneously. However, this is to be expected when entering a largely unexplored legal and technological territory.

iii. Potential for Universal Application

One of the most utilitarian aspects of the Contract-for-Carriage Approach is its potential for global application via the nearly universal acceptance of uniform international air law—like the Montreal Convention¹¹¹—and international space law encapsulated in the U.N. space treaties.¹¹² For example, the United States, Great Britain, France, Australia, Brazil, India, Nigeria, and China (only to name a few) are all parties to the Montreal Convention,¹¹³ the Outer Space Treaty, and the Liability Convention.¹¹⁴ The Contract-for-Carriage Approach simply applies pre-existing principles and legal-frames from these already accepted institutions, ensuring that the legal system put in place for the operation of ASV technology is understandable, efficient, and practical for both governments and private actors, regardless of whether they hail from traditional space giants or developing countries. This approach would also serve to help jumpstart the ASV technologies of countries who do not yet have concrete domestic space laws. Instead of re-inventing the wheel, why not start from a place where this is already familiar and acceptable to the international community as a whole? A legal approach to ASVs should be comprehensive, taking into account the incredible progress made in the global west, east, north and south. After all, this is the generation that will set foot on Mars, cross the globe in under an hour, and begin space missions from airport runways.

¹¹⁰ Rescue Agreement, Art. 1-4.

¹¹¹ Montreal Convention, *supra* note 87.

¹¹² U.N. space treaties, *supra* note 64.

¹¹³ *Convention for the Unification of Certain Rules for International Carriage by Air done at Montreal on 28 May 1999*, ICAO, http://www.icao.int/secretariat/legal/List%20of%20Parties/Mtl99_EN.pdf (Last visited on March 7, 2017).

¹¹⁴ *Status of International Agreements relating to activities in outer space as at 1 January 2016*, UNITED NATIONS OFFICE FOR OUTER SPACE AFFAIRS, http://www.unoosa.org/documents/pdf/spacelaw/treatystatus/AC105_C2_2016_CRP03E.pdf (Last visited on March 7, 2017).

VII. CONCLUSION

Admittedly, a dual legal regime for ASVs—based on a Contract-for-Carriage Approach—depends on several presumptions both circumstantial and legal. Nonetheless, this regime is pragmatic in that the international community need not create an entirely new legal regime for activities which can be easily regulated by already existing concepts and frameworks. No, it does not answer every possible question or scenario. However, it does provide an efficient and familiar place to start. The law itself does not necessarily answer every question or solve every possible riddle. However, it is designed to adapt to new situations and scenarios as they materialize. It would seem that governments have, for the most part, plateaued

in their attempts to spearhead humanity's cosmic ambitions. Therefore, the future of mankind's exploration of space is now—more than ever—in the hands of individuals and private entities. In light of this quickly developing reality, it is incredibly important that space-faring nations create positive legal frameworks for the benefit of developing technologies like aerospace vehicles. This author believes that the collective concept of space technology and exploration should not merely elicit thoughts of the Apollo launches in the 60s, or the space-plane programs of the 80s, but also of tomorrow: its hopes, dreams, technologies, and laws.

INFORMATION ABOUT THE JOURNAL

The *Indian Journal of Law and Technology* (ISSN 0973-0362) is an academic journal, edited and published annually by students of the National Law School of India University, Bangalore, India. All content carried by the Journal is peer-reviewed except for special comments, student articles and editorial notes. The Journal comprises:

- the Board of Advisory Editors, consisting of professionals and academicians pre-eminent in the field of law and technology, which provides strategic guidance to the Journal;
- the Article Review Board, a panel of external peer-reviewers;
- the Editorial Board, consisting of students of the National Law School of India University, which is responsible for selecting and editing all content as well as contributing occasional editorial notes;

OPEN ACCESS POLICY

The *Indian Journal of Law and Technology* is a completely open access academic journal.

- Archives of the journal, including the current issue are available online with full access to abstracts and articles at no cost.
- Please visit the website of the Indian Journal of Law and Technology at "<http://www.ijlt.in>" to get additional information and to access the archives of previous volumes.

INFORMATION FOR CONTRIBUTORS

The Indian Journal of Law and Technology seeks to publish articles, book reviews, comments and essays on topics relating to the interface of law and technology, particularly those with a developing world perspective.

MODE OF SUBMISSION

Submissions can be in electronic form or in hard copy form. However, submissions in electronic form are strongly encouraged in order to expedite

the submission review process. Please address submissions in electronic form to the Chief Editor of the Indian Journal of Law and Technology at “ijltedit@gmail.com”.

REGULAR SUBMISSION REVIEW

The Journal shall communicate an acknowledgement to all authors shortly after the receipt of their submissions. The preliminary review of the submissions shall be completed within four weeks of receipt in usual circumstances. The submissions that are initially accepted shall be blind-refereed by the Article Review Board. The Journal shall make due efforts to complete the entire peer-review process within a reasonable time frame. The Journal shall notify the authors about the exact status of the peer-review process as required.

EXPEDITED SUBMISSION REVIEW

This option is available to those authors who have received an offer of publication from another journal for their submissions. The authors may request an expedited submission review. However, the decision to grant an expedited submission review shall remain at the discretion of the Editorial Board. Please note that requests for an expedited submission review can only be made in relation to submissions in electronic form. All such requests must be accompanied by the following details:

- Name(s) of the author(s) and contact details;
- Title of the submission;
- Details about the journal(s) which has/have offered to publish the submission;
- Whether the offer is conditional or unconditional and, if the offer is conditional, then what conditions are required to be met for final acceptance;
- The date(s) on which the offer(s) expire(s).

The Journal shall make due efforts to accommodate the existing offer(s) and applicable deadline(s). However, upon an offer of publication pursuant to the

expedited submission review, the authors shall have to communicate their decision within five calendar days of the notification or the offer. If there is no response, then the journal shall have the discretion to withdraw the offer.

SUBMISSION REQUIREMENTS

- All submissions must be accompanied by:
 - (1) a covering letter mentioning the name(s) of the author(s), the title of the submission and appropriate contact details.
 - (2) the résumé(s)/curriculum vitae(s) of the author(s).
 - (3) an abstract of not more than 200 words describing the submission.
- All submissions in electronic form should be made in the Microsoft Word file format (.doc or .docx) or in the OpenDocument Text file format (.odt).
- All text and citations must conform to a comprehensive and uniform system of citation. The journal employs footnotes as the method of citation.
- No biographical information or references, including the name(s) of the author(s), affiliation(s) and acknowledgements should be included in the text of the submission, the file name or the document properties. All such information can be provided in the covering letter.
- The Journal encourages the use of gender-neutral language in submissions.
- The Journal shall be edited and published according to the orthographical and grammatical rules of Indian English that is based on British English. Therefore, submissions in American English shall be modified accordingly. The Journal encourages authors to use British English in their submissions in order to expedite the editing process.
- The authors are required to obtain written permission for the use of any copyrighted material in the submission and communicate the same to the Journal. The copyrighted material could include tables, charts, graphs, illustrations, photographs, etc. according to applicable laws.

COPYRIGHT

The selected authors shall grant a licence to edit and publish their submissions to the Journal but shall retain the copyright in their submissions. The aforementioned licence shall be modelled as per a standard author agreement provided by the Journal to the selected authors.

DISCLAIMER

The opinions expressed in this journal are those of the respective authors and not of the Journal or other persons associated with it.

PERMISSIONS

Please contact the Chief Editor of the Indian Journal of Law and Technology for permission to reprint material published in the Indian Journal of Law and Technology.

SUBSCRIPTION GUIDELINES

Subscription:

Subscription (inclusive of shipping) of the IJLT is as follows:

TYPE OF SUBSCRIPTION	BI-ANNUAL
Hard Copy	₹ 800
E-copy	₹ 800

To subscribe, a draft of the requisite amount in favour of 'Eastern Book Company' payable at Lucknow, must be sent along with the completed subscription form, to:

Eastern Book Company,

34, Lalbagh, Lucknow-226001, India

Tel.: +91 9935096000, +91 522 4033600 (30 lines)

Please allow for 4-6 weeks for delivery of the journal in hard copy.

All subscription enquiries may be sent to subscriptions@ebc-india.com

To subscribe to the e-copy version visit www.ebcwebstore.com

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission.

The published works in this issue may be reproduced and distributed, in whole or in part, by nonprofit institutions for educational and research purposes provided that such use is duly acknowledged.



IJLT

THE INDIAN JOURNAL OF
LAW AND TECHNOLOGY

Volume 13 | Issue 1 | 2017

SUBSCRIPTION FORM

Please enter/renew my subscription for the items circled below:

TYPE OF SUBSCRIPTION	BI-ANNUAL
Hard Copy	₹ 800
E-copy	₹ 800

Mailing Details:

NAME _____

ORGANISATION _____

DRAFT No. _____

DRAWN ON _____

FOR RS. _____ (in favour of EASTERN BOOK COMPANY)

ADDRESS _____

TEL: _____

EMAIL: _____

Attach attested photocopy of Photo ID of institution to avail Law Student/Teacher subscription.

