

An Integrated Framework for the Study of Digital Platforms



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In this Report

The concept of 'digital platforms'

An integrated theoretical approach

- Several disciplines have attempted to build a theory of digital platforms (or 'platforms'), such as information sciences, economics, business and management studies, and legal theory. In describing the universe of concepts related to platforms, these disciplines have created several different languages to speak to the same set of ideas.
- While the language describing concepts related to digital platforms remains different, there is an idealised theoretical model of a platform – a **common elementary conceptualisation across disciplines: a mere 'stage' which allows two or more groups of people to interact with each other.** Yet, in reality, most platforms are sophisticated entities coordinating complex exchanges. This is where the variance across disciplines emerges making it difficult to arrive at a universal comprehensive definition.

Building a ground-up understanding of digital platforms

- Legal and regulatory action appears to be paralysed by the multitude of terminology that describes the concepts related to digital platforms. The absence of a comprehensive conceptual framework leads to a **fragmented regulatory framework for platforms.**
- This report attempts to build a regulatory terminology that scales up from the elementary theorisation, which runs across disciplines: the idealised theoretical platform which is a mere stage to enable interaction. **This approach identifies variance with this idealised elementary conceptualisation of a platform and builds a framework to understand such variance.**
- In order to harmonise legal developments with this terminology, we identify some criteria which can organise legal observations about the design of such platforms in a way that cuts across specific legal regimes. Using this method, we design an adaptable framework to aggregate insights about platforms.

The experience of the law

Round pegs, square holes and the need for an intermediary

- An analysis of legal responses to the challenges posed by platforms reveals a lack of definitional clarity, the repurposing of existing legislation, a lack of sophistication in rulemaking, and presents a **disconnected state of legal reform**, specifically in the Indian context.
- The law relies on static classifications made in the text of the law to recognise the differences between the entities it regulates. In the context of platform regulation, this creates frameworks which are not adaptable to the specifics of platform design. There is a need to separate monolithic legal rules from platform design. **An interface which can allow the law to understand and adapt to platform design would enable a holistic understanding, and consequent efficiency in regulation of platforms.**

Translating the law to platform design

- Globally, the legal recognition of platforms is relatively nascent. There is an opportunity to integrate disparate movements of legal reform into a comprehensive approach for regulating evolving platform structures. This report builds a database of 150 cases to identify aspects of platform design that courts have recognised, and which represent a variance from the idealised elementary conceptualisation of a platform. This is based on an analysis of **524 cases** across **four jurisdictions (India, the European Union ('EU'), the United Kingdom (UK) and the United States ('US'))**. The sample of cases was aggregated by collecting all cases featuring the phrases "online platform(s)" or "digital platform(s)" from five research databases as of November 2019. The methodology section of this report outlines our approach in greater detail.

In this Report

A practical tool to mediate platform design and the law

Towards building a taxonomy of digital platforms

- Synthesising the state of legal knowledge with insights from theory, this report develops a **framework which allows for the classification of platforms based on regulatory considerations**. This framework can be developed further to break down digital platform structures and behaviour, ultimately arriving at a functional taxonomy of digital platforms for policy makers.

A legal interface for consumer platforms

- Lastly, using attributes of platform behaviour identified by courts, this report devises an interface which is capable of translating judicial observations of consumer-facing platforms **into a legal understanding of platform design**. We illustrate this interface with a survey of the contractual terms and design aspects of 12 consumer platforms.

Table of Contents

I. INTRODUCTION	8
II. THE THEORY OF DIGITAL PLATFORMS	10
The context of Platform Regulation	10
The Theoretical Jumble	12
Inadequacy of 'Definition' of Platforms in Secondary Literature	12
Complications of Platform Design	13
An Integrated Approach to Understanding Digital Platforms	14
III. DIGITAL PLATFORMS IN THE MARKET	17
Identifying Definitional Criteria	19
IV. THE EXPERIENCE OF THE LAW	21
Conceptual Fragmentation Of Regulation	21
Crude Assumption Of Sophistication In Platform Design	23
Case Studies Of Platform Regulation In India	24
Food And Beverage Sector	24
Transportation And Cab Aggregation	25
Judicial Recognition Of Platform Attributes	26
Ambiguity In Judicial Conceptualisation Of Digital Platforms	27
Inadequacy Of Existing Laws	28
Observation	30
V. TRANSLATING THE LAW TO PLATFORM DESIGN	31
Need For Systematic Collection Of Legal Knowledge	31
Synthesising Insights From Theory And Legal Practice	33
Developing An Adaptable Framework	33
Methodology	35
VI. TOWARDS A TAXONOMY OF PLATFORMS	37
Developing Regulatory Taxonomies	37
Constraints Of Taxonomy Development	38
VII. BUILDING A LEGAL INTERFACE FOR CONSUMER PLATFORMS	41
Mapping Variance From An Idealised Theoretical Version Of A Digital Platform	41
Methodology For Mapping Platforms	41
Application And Development	42
VIII. CONCLUSION	44

Introduction

For hundreds of years, an individual wanting to sell a product had to enter a formal market or a place where goods and services could be physically exchanged.¹ This point of entry could be anything from buying a piece of land near other shops in the city to attract customers, to engaging in trade through organised networks such as guilds or, in more sophisticated societies, by accessing common marketplaces or exchanges.

Today, owing to leaps in technological development, this status quo has been dramatically altered. A million-dollar transaction across the globe can now take place through a single application ('app') on a smartphone. These apps can connect a seller with buyers in a particular neighbourhood or on opposite ends of the world in the matter of a few taps. Evolving technology has enabled the development of sophisticated global marketplaces, with minimal barriers to entry and with far greater coordination capabilities.² The ability of technology to enable coordination at this level drives much of what is termed as 'disruption' of traditional industries.³ The infrastructure at the heart of this 'disruption' is often termed as the 'platform', and is a term that is increasingly used to describe the capability of creating these sophisticated avenues of exchange. This report focuses specifically on technology-driven platforms, using the terms 'digital platform' or 'platform' interchangeably. The success of digital platforms lies in their capability to

coordinate exchange efficiently. Digital platforms have grown to be complicated, sophisticated entities which play a crucial role in organising markets and structuring exchanges.⁴ Consequently, ensuring that legal structures are able to adapt to the role played by such platforms is a key question in the governance of technology today. However, for laws to adapt to platform realities, it is crucial to understand what the term platform really means.

The global interest in digital platforms has, perhaps tragically, rendered the term meaningless. Several disciplines have descended upon the revolution caused by digital platforms and developed their own vocabulary to address the concepts associated with such platforms.⁵ This remarkable movement in law, technology, economics and social sciences to understand digital platforms has created significant confusion about what the term actually means. The direct consequence of the lack of clarity about the concept of digital platforms is a paralysis of regulatory movements towards platforms.

In this report, we attempt to animate the concept of digital platforms to make it useful from a regulatory perspective. We dissect the term and its legal connotations and attempt to devise a framework which can ultimately be used to understand digital platforms and arrive at a functional taxonomy. Our approach is designed to enable a comprehensive

¹ David de la Croix, Matthias Doepke and Joel Mokyr, 'Clans, guilds and markets: Apprenticeship institutions and growth in the preindustrial economy', 133 *The Quarterly Journal of Economics*, 1, 4 (2017)

² Tarleton Gillespie, 'Platforms are not intermediaries', 2 *Georgetown Law and Technology Review*, 198 (2018)

³ Erol Kazan, Chee-wee Tan and Eric TK Lim, 'Towards a framework of digital platform disruption: A comparative study of centralised and decentralised digital payment providers', ACIS (2014).

⁴ Tarleton Gillespie, 'Platforms are not intermediaries', (2018) 2 *Georgetown Law and Technology Review* 198.

⁵ Jonas Anderssen Schwarz, 'Platform logic: An interdisciplinary approach to the platform-based economy', 9(4), *Policy and Internet*, 374 (2017) 9(4) *Policy and Internet* 374.

aggregation of insights about digital platforms. In an instance of ironic self-reflection, the tools we develop in this report offer a platform on which more insights about platforms can be organised, in order to enable regulatory and legislative action.

To this end, **Part I** surveys existing theory around digital platforms, and integrates these insights into an approach that can build a ground-up understanding of digital platforms. **Part II** analyses the role played by digital platforms in the market and identifies criteria which can organise legal insights about platforms in a way that cuts across specific geographic and sectoral legal regimes. **Part III** examines Indian legal responses to challenges posed by digital platforms and identifies problems which constrict regulatory responses. **Part IV** proposes a method for the translation of legal observations into a framework responsive to the nuances of platform design. It suggests the separation of monolithic legal rules

from platform design and identifies tools which can mediate between the law and technology. A systematic analysis of the content of judicial opinions is conducted for the purpose of operationalising this method. We deploy this method in two forms in the subsequent parts to the context of consumer-facing platforms, which we identify as crucial drivers of growth as well as the most prominent regulatory concerns.

Part V conceptualises a method for developing taxonomies of consumer platforms based on a database of legal observations and offers an examination of the design constraints of such taxonomies. **Part VI** develops a legal tool which can serve as an interface between legal rulemaking and platform design. It surveys the contractual terms and platform design of 12 leading consumer platforms to illustrate this interface.

Part VII offers a summary of insights and outlines an agenda for future research.

The theory of digital platforms



The context of platform regulation

The Biblical myth of the 'Tower of Babel' offers an interesting analogy to the regulation of 'digital platforms'. In this myth, the Tower of Babel is, at once, a place of collection of immense knowledge as the only place in the world which has a speaker of every language. On the other hand, no one is able to clearly understand the knowledge generated in this place because of the ensuing confusion amongst its inhabitants who cannot understand each other.⁶

Digital platforms, which are the subject of this report, have been discussed in what may appropriately be termed an interdisciplinary 'Tower of Babel',⁷ representing an object of study which has had several academic disciplines attempting to describe it, but which has also led to the lack of an integrated approach incorporating insights across disciplines.

Multiple disciplines have attempted to analyse such platforms, often electing to build their own terminology for referring to the various concepts involved therein. While economists refer to them as 'multi-sided markets',⁸ lawyers prefer the term 'intermediaries',⁹ and information science scholars use the word 'platform'.¹⁰ Broadly, there is a common object of study across these disciplines. In this report, we elect to use the term 'digital

platforms' (or 'platforms'), the term that is perhaps used most widely across disciplines, in an attempt to synthesise insights from legal discourse, economic literature and information science scholars.

As a result of the heterogeneous nature of academic research, the body of work studying digital platforms has offered little value to the development of legal frameworks. Most laws which apply to digital platforms are 'offline laws' which are, through interpretation in specific cases, made applicable to the activities of digital platforms. The responsibilities of such platforms are not identified through a sui generis analysis of their characteristics, but through analogies drawn between offline regulation and attributes of digital platforms. Therefore, while insights about how digital platforms operate may be generated in a discipline, because of the lack of an integrative framework for translating such insights into regulatory actions, platforms have been able to function in a paradigm of 'permission-less innovation'.¹¹

Over the last few years, public attention has been sharply directed at the activities and characteristics of such digital platforms. The emergence of digital platforms,¹² as the way in which a large number of consumer goods and

⁶ Genesis 11:1-9, The Bible (King James Version)

⁷ James Mallet and Keith Willmott, 'Taxonomy: Renaissance or Tower of Babel?', 18(2), Trends in Ecology and Evolution (2003).

⁸ Jean-Charles Rochet and Jean Tirole, 'Platform competition in two-sided markets' [2003] 1 Journal of the European Economic Association, 990, 995

⁹ Olivier Sylvain, Intermediary Design Duties, Connecticut Law Review Vol. 50(1) (2018) 204-274, 206.

¹⁰ Annabelle Gawer, 'Bridging different perspectives on technological platforms: Towards an integrative framework' [2014] 43 Research Policy, 1239, 1242

¹¹ Adam Thierer, 'Permissionless innovation: The continuing case for comprehensive technological freedom', Mercatus Centre at George Mason University (2016)

¹² Tarleton Gillespie, 'The Politics of Platforms', 12(3), New Media and Society (2010)

product markets are organised, has been key to this attention. Their rise has contributed to the growth of the digital economy as they now form the core component of the 'sharing economy', 'trust economy', 'collaborative economy', and the 'gig economy', to name a few. Platforms such as Uber, Airbnb and Amazon in the global context, and Ola, Flipkart and Zomato in the Indian domestic context, have disrupted the traditional incumbents in their respective industries.¹³ Automation, efficiency in service delivery, reduction of transaction costs, and seamless cross-border operations have ensured that digital platforms are everywhere, across numerous sectors and services.

Alongside the benefits that digital platforms provide, their evolving nature and the proliferation of certain practices lead to varying amounts of control that they may exert over the market. This could lead to tangible and intangible harms that impact consumers and markets, directly and indirectly. The power accumulated by such platforms presents fresh regulatory challenges. For instance, the labour management practices of ride-sharing services such as Uber and Ola,¹⁴ or consumer protection and competition issues¹⁵ which emerge in e-commerce are instances where this market power has directly translated into some form of public harm.

It has been observed that governments face significant difficulty in regulating these platforms. This could be due to a variety of factors— inability of governments to evolve a *de novo* regulation which acknowledges the intertwined technological and economic realities

of contemporary digital platforms; and the inability to pin-point duty-holders due to varying platform architectures, fragmented responsibilities, and differing views on control exercised by the platform. Another factor that crucially contributes to the regulatory conundrum is governments' inability to understand platforms conceptually, and sometimes also the inconsistency in the ways in which, such platforms are conceptually understood. Accordingly, regulatory priorities differ and, in many instances, are unable to efficiently regulate platform functioning. Further, whenever these issues have arisen in litigation, or in regulatory contexts, the defence adopted by such platforms has been that they are merely companies that provide technological services and do not own or provide the underlying service.¹⁷ Platforms have consistently pressed the argument of being mere technology companies, in order to minimise their liability and responsibility.

This claim is premised on the traditional understanding of the relationship between a company and the service provided by it.¹⁸ This traditional understanding is challenged by the way in which platforms operate in the market, which is outlined in later sections of the report. A perspective on markets which situates digital platforms appropriately would be capable of identifying the responsibilities that must attach to a 'mere technology company' and of structuring these responsibilities in a regulatory framework that achieves the greatest social welfare. To this end, this report attempts to develop a framework which would satisfy this need.

¹³ Kunal Talgeri, 'India in the era of disruption', Fortune India, May 16, 2016, available at < <https://www.fortuneindia.com/technology/india-in-the-era-of-disruption/101196>> Accessed 3 January, 2020

¹⁴ Somit Sen, 'Ola, Uber drivers threaten fresh strike for better earnings', Times of India, January 12, 2019, available at <<https://timesofindia.indiatimes.com/city/mumbai/ola-uber-drivers-threaten-fresh-strike-for-better-earnings/articleshow/67506814.cms>> Accessed January 3, 2020

¹⁵ European Commission, Communication on Online Platforms and the Digital Single Market: Opportunities and Challenges for Europe (Com 288 Final, 2016), 5

¹⁶ David S Evans and Richard Schmalensee, 'The antitrust analysis of multi-sided platform businesses' [2013] No w18783 National Bureau of Economic Research

¹⁷ Brishen Rogers, 'The Social Cost of Uber' [2015] 82 U of Chicago L.R. Online < https://chicagounbound.uchicago.edu/uclrev_online/vol82/iss1/6> accessed 1 July 2019

¹⁸ Jeremias Prassl and Martin Risaak, 'Uber, Taskrabbit & Co: Platforms as employees? Rethinking the legal analysis of crowdwork' [2016] CLLPJ;

The theoretical jumble

Inadequacy of 'definitions' of platforms in secondary literature

This report seeks to establish that it is essential to first understand and define platforms conceptually before embarking on the difficult task of regulating them. Due to the chimeric nature of platforms, it is observed that there is no single, one-size-fits-all approach towards understanding and defining digital platforms. Platforms seem to have been interpreted differently based on the point of view from which they are examined and could mean different things in different sectors.

For instance, to a software engineer, a platform could mean a common set of technologies or interfaces that are available to a broad base of users who build things with it and on it— for instance, the operating system of a mobile phone.¹⁹ To a merchant on the other hand, an online platform may simply be the forum where products are purchased and sold online.²⁰ From an examination of the available literature on the subject, it appears that historically, there have been several broad approaches to understanding platforms. These are from the perspectives of (i) product development; (ii) technology strategy; and (iii) industrial economics.²¹ This appears to be in agreement with the opinions of other scholars who have also suggested that platforms can be studied from the perspective of economics and engineering (to combine product development

and technology strategy).²² It is to be noted that product development finds greater currency in the offline world, and will therefore not be discussed in this report.

The earliest understanding of platforms stems from an industrial and products perspective in the physical space, which places importance on a somewhat 'tangible' interpretation of the term. Similar to the ordinary understanding of the term, i.e. a flat structure on which one can stand or build, information sciences scholars envisage platforms as building blocks which provide an essential function to a technological system and serve as a foundation upon which complementary products/technologies/services can be developed.²³ Similarly, platforms have also been described as having a stable core with a variable periphery.²⁴ Therefore, a platform can be described as any product that meets the needs of a core group of customers, but is designed in such a manner that it can be easily modified into derivatives through the addition, substitution, or removal of certain features.²⁵

Secondary literature sources attempt to define digital platforms from a technological perspective, by focusing on the technical elements and processes that interact to form a digital platform.²⁶ As per this understanding, digital platforms are understood as software codebases, where modules designed by third parties can complement and interact with each

¹⁹ OECD, *An Introduction to Online Platforms and Their Role in the Digital Transformation*, p. 20, available at <https://read.oecd-ilibrary.org/science-and-technology/an-introduction-to-online-platforms-and-their-role-in-the-digital-transformation_53e5f593-en#page1>

²⁰ OECD, *An Introduction to Online Platforms and Their Role in the Digital Transformation*, p. 20, available at: <https://read.oecd-ilibrary.org/science-and-technology/an-introduction-to-online-platforms-and-their-role-in-the-digital-transformation_53e5f593-en#page1>

²¹ Carliss Y. Baldwin and C. Jason Woodard, *The Architecture of Platforms: A Unified View*, in *Platforms Markets and Innovation*, Annabelle Gawer (ed.), Research Collection School of Information Systems, available at <https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=3451&context=sis_research>, last accessed January 5, 2020.

²² Annabelle Gawer, 'Differing Perspectives on Technological Platforms: Toward an Integrative Framework', *Research Policy* 43 (2014) 1239.

²³ This definition was introduced while describing Microsoft Windows as an industrial platform in Annabelle Gawer, *Platforms, Markets and Innovation: An Introduction*, in Annabelle Gawer, *Platforms, Markets and Innovation* (2009) Edward Elgar Publishing Inc, 2; also referred to in Paolo Spagnoletti, Andrea Resca, Gwanhoo Lee, *Journal of Information Technology* (2015) 30(4), 364-380.

²⁴ Carliss Y. Baldwin and C. Jason Woodard, *The Architecture of Platforms: A Unified View*, in *Platforms Markets and Innovation*, Annabelle Gawer (ed.), Research Collection School of Information Systems, available at <https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=3451&context=sis_research>, last accessed January 4, 2020.

²⁵ Steven C. Wheelwright and Kim B. Clark, *Creating Project Plans to Focus on Product Development*, *Harvard Business Review* (2003), as cited in Carliss Y. Baldwin and C. Jason Woodard, *The Architecture of Platforms: A Unified View*, in *Platforms Markets and Innovation*, Annabelle Gawer (ed.), Research Collection School of Information Systems, available at <https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=3451&context=sis_research>, last accessed January 6, 2020.

²⁶ Ahmad Asadullah, Isam Faik and Atreyi Kankanhalli, *Digital Platforms: A Review and Future Directions*, *PACIS Proceedings* (2018).

other and with this codebase.²⁷ The Windows Operating System is an example of a digital platform understood from this perspective, which provides the technological interface upon which many other programmes and applications can be built and developed.

The methods of defining the platforms described above may be useful in understanding platforms from a technical perspective. However, these methods are not of much use in understanding their real-world impact. For this purpose, examining digital platforms from an economic perspective may be more useful. To this end, the simplest understanding of platforms is as a forum which enables interactions between end-users to allow both buyers and sellers to come on board with each other in a way that would benefit both,²⁸ thus, enabling transactions between users who would otherwise struggle to find each other.²⁹ Such interactions could create a two-sided marketplace (for sellers and buyers), or a multi-sided marketplace, where the platform facilitates interactions between two or more interdependent groups of users. Multi-sided markets derive economic value because they generate network effects, which means that the value to customers on one side of a platform typically increases with the number of participating customers on the other side.³⁰ Direct network effects,³¹ indirect (or two-sided network effects),³² data network effects,³³ and social network effects³⁴ are some examples of the types of network effects that may be generated by a platform. Based on the economic perspective of digital platforms, they are also

categorised on the basis of their business models and manner of governance.

Complications of platform design

From the above, it is evident that although there is a great deal of literature which discusses the conceptual or theoretical understanding of digital platforms, the fact of the matter remains that understanding these concepts in isolation is not sufficient. This is primarily because of the dichotomy between what digital platforms do and what they are. In fact, if one examines the manner in which the largest platform companies describe themselves, it is most often in terms of what they are not. For instance, Uber is not a transportation service, Airbnb is not a hotel service, and Zomato is not a restaurant service.

The justification for this could be that such platforms are disruptive and cannot fit neatly into existing industry categorisations. However, a downside is that these platforms remain unregulated because existing legislation is simply not nuanced enough to capture the contours of the platforms. This is discussed in greater detail in the section below. As a result of being unregulated, there is no form of redress in case some harm occurs to the public as a result of the platform, since it becomes difficult to ascribe liability to it.

To further complicate this issue, some platforms refer to themselves as intermediaries which are passive in nature and thus having no control over the information flowing through it,³⁵ and thus, functioning only as conduits with little or no role

²⁷ Tiwana, *Platform Ecosystems: Aligning Architecture, Governance and Strategy*, Morgan Kaufman.

²⁸ Jean-Charles Rochet and Jean Tirole, *Two-Sided Markets: A Progress Report*, *RAND Journal of Economics*, Vol. 37, No. 3 (2006), 645-667, 645.

²⁹ Jonas Andersson Schwarz, 'Platform Logic: An Interdisciplinary Approach to the Platform-Based Economy', Policy Studies Organisation

³⁰ Andrew Haigu, *Strategic Decisions for Multi-sided Platforms*, MIT Sloan Management Review (December 19, 2013).

³¹ Direct network effects are those where the value of a product increases in direct proportion to the rise in the number of users of the product. Examples of such network effects can be found in the telecommunication industry, or social networking platforms such as Facebook and Twitter.

³² Indirect network effects arise when there are two distinct classes of users (on the supply side as well as the demand side). They produce complementary value for the other side. Two sided market place platforms such as eBay function on indirect network effects, whereby the addition of every new seller adds value to the buyer as it increases the supply and variety of goods being offered for sale.

³³ Data network effects mean that the more data that the platform is able to collect and use, the greater will its value increase. For instance, Yelp is a platform that generates a data network effect because the value of the platform increases with the more number of individuals who review restaurants. On the contrary, an online platform such as Netflix is one that has a low data network effect because Netflix functions (and derives maximum value from) the fact that it acts as a repository of movies and TV shows.

³⁴ James Currier, *The Networks Effects Manual: 13 Different Kinds of Network Effects (and counting)*, available at < <https://www.nfx.com/post/network-effects-manual>>.

³⁵ For instance, Section 2(1)(w) of the Information and Technology Rules, 2000 defines an intermediary with respect to any particular electronic message as a person who on behalf of another person receives, stores or transmits that message or provides any service with respect to that message.

in initiating or making decisions while disseminating information, content or products.³⁶ They function by extracting and utilising data given to them by providing the infrastructure and intermediation between these groups.³⁷ For instance, digital platforms such as Uber connect riders and drivers; and Facebook connects users, advertisers and businesses.

The constantly evolving mechanics of digital platforms also means that they extend beyond the role of a passive intermediary. This is because they actively shape the performance of certain acts of their users instead of merely facilitating them.³⁸ Therefore, one could posit that platforms are not actually 'neutral infrastructures' in all situations, but are 'fast-changing and increasingly privatised infrastructures' which are constantly modified by their private owners to enhance revenues and maximise data collection.³⁹

This would mean that certain platforms exert some form of control over their users, as they simultaneously allow and constrain usage. One such example is that of the Apple iOS platform. Only users of the iPhone have access to Apple's technology platform; Apple exerts control over the apps that are available on its App Store (and also has the prerogative to reject certain apps over issues of quality and strategy); only Apple has the rights to sell its products (such as the iPhone); and finally Apple exerts all proprietary and intellectual property rights over its technology. Employing elements of control over users also means that such platforms are more capable of influencing user behaviour, both explicitly and implicitly. For instance, digital platforms such as Uber exert a high degree of control over users.⁴⁰ Uber's matching algorithm ensures that a user has no real choice in terms of then car and the driver that is assigned to her.

The user also has no bargaining power in terms of the fare. She is obligated to pay the fare that is determined by the algorithm (inclusive of any variations that may occur through surge pricing). It is arguable that in the event a platform starts to exert any sort of control over its users, it must be held to the concomitant standard of liability in the event of harm.

In addition to the increasing amount of control or influence that digital platforms extend over their users; it has been observed that the role of platforms has also evolved to that of accumulation. An example of this is Amazon, which in a previous avatar was exclusively a retailer. Now Amazon has grown into an entity of massive proportions, which focuses on e-commerce, cloud computing, artificial intelligence and streaming services, while still performing its core function as a platform. Furthermore, not only does Amazon continue to function as a facilitator between various sides of the market, it also produces and sells its own products on the platform. An example of this is Amazon Basics— Amazon's private label brand for products manufactured by Amazon and sold on the platform. This signifies an added degree of control exerted by the platform on its products and consequently on sales made to platform users.

Additionally, the nature of some platforms has evolved to that of platform superstructures, i.e., they not only act as platforms for a certain segment of the market, but also provide the infrastructure on which other platforms function. For instance, the technological infrastructure provided by Amazon Web Services is used by platforms such as Uber and Netflix. This leads to the evolution of platforms into superstructures⁴¹ on which many other platforms become dependent to perform

³⁶ OECD, *The Economic and Social Role of Intermediaries*, available at < <https://www.oecd.org/internet/ieconomy/44949023.pdf>>, 9.

³⁷ Nick Srnicek, 'The Challenges of Platform Capitalism: Understanding the Logic of a New Business Model', 23(4) *Juncture* (2017).

³⁸ José van Dijck, *The Culture of Connectivity: A Critical History of Social Media*, Oxford University Press (2013), 29.

³⁹ Mark Andrejevic, 'Exploitation in the data mine', in Christian Fuchs, Kees Boersma, Anders Albrechtslund and Marisol Sandoval (eds), *Internet and Surveillance: The Challenges of Web 2.0 and Social Media*, Routledge (2012) as cited in *Media Imperialism: Continuity and Change*, Oliver Boyd-Barrett and Tanner Mirrlees (eds), Rowman and Littlefield (2019).

⁴⁰ Alex Rosenblat, 'The Truth about how Uber's app manages drivers', *Harvard Business Review*, available at <<https://hbr.org/2016/04/the-truth-about-how-ubers-app-manages-drivers>>

⁴¹ Jonas Andersson Schwarz, *Platform Logic: An Interdisciplinary Based Approach to the Platform Economy, Policy and Internet*, 10.

their own functions. Consequently, there is a large degree of integration amongst various parts of a platform.

An integrated approach to understand digital platforms

In order to integrate approaches from across disciplines, we attempt to identify an approach that can build a ground-up understanding of digital platforms. While the complications of platform design have been described using different terms across literature, we identify a common analytic concern that runs across disciplines to orient an integrated approach to understanding digital platforms.

In his work on integrating literature from the disciplines of economics, business and management studies, political economy and information sciences, Jonas Anderssen Schwarz identifies a common analytic concern which is germinal to most disciplines' understanding of platforms, which is the elementary conceptualisation of digital platforms.⁴² While most disciplines disagree on the degree of specialisation at which the features associated with platforms, such as 'network effects' and economies of scope kick in, there seems to be a common concern at the heart of inquiries across disciplines.⁴³ He describes this common concern in the following words: "in an ontological sense, a platform can be envisaged as a (technologically and materially constituted) 'stage' that gives actors leverage, durability and visibility".⁴⁴ He goes on to state that when a platform begins operating as an infrastructure for exchange, it is "a mediator rather than an intermediary".⁴⁵ In describing the aspects of platforms that enable this mediation, he refers both to factors relating to influence over the transaction, as well as integration with the overall service. He

concludes his definitional query by stating "issues of both control and accumulation arise" in building a model of digital platforms which is stacked on top of the pure ontological understanding of platforms.

We refer to this common concern as the idealised theoretical version⁴⁶ of a platform: as a pure 'stage' which merely enables interactions between groups of people. It is exactly what major platforms of the day claim to be in the face of tough regulatory attention. However, in an attempt to truly unpack the concept of digital platforms, we suggest an **approach which tracks variance from this idealised theoretical version of a platform**. Such an approach would be able to build a ground-up understanding of digital platforms and provide a more realistic understanding of platform behaviour.

This approach borrows from a cross-jurisdictional empirical analysis of the degrees of legal formalism, that is, procedural and evidentiary constraints in judicial systems.⁴⁷ Hailed as a landmark in law-and-economics, this study relied on mapping variance from the 'neighbourhood model' of dispute resolution across countries to measure how formalised dispute resolution processes were. This involved recording aspects such as the number of processes involved in adjudication, the number of documents that had to be filed and the formal evidentiary rules regarding adjudication.⁴⁸ By measuring how far away any jurisdiction was from an idealised theoretical model of dispute resolution termed the 'neighbourhood model', the study was able to create a reliable measure for the degree of legal formalism in a jurisdiction.⁴⁹ In the context of this report, by measuring variance from the idealised theoretical model of a platform, we believe

⁴² Jonas Anderssen Schwarz, 'Platform logic: An interdisciplinary approach to the platform-based economy', 9(4), *Policy and Internet*, 374 (2017)

⁴³ For example, the work of Rochet and Tirole is concerned with the question of when an intermediary may be termed a 'platform', spurring a body of economic work which attempts to identify the features of intermediaries which lead to the occurrence of phenomenon associated with platforms, such as 'network effects' and 'economies of scope'. See, Jean-Charles Rochet and Jean Tirole, *Two-Sided Markets: A Progress Report*, *RAND Journal of Economics*, Vol. 37, No. 3 (2006), 645-667, 645

⁴⁴ Jonas Anderssen Schwarz, 'Platform logic: An interdisciplinary approach to the platform-based economy', 9(4), *Policy and Internet*, 374 (2017)

⁴⁵ Jan Van Dijk, 'The culture of connectivity: A critical history of social media' (2013)

⁴⁶ Jonas Anderssen Schwarz, 'Platform logic: An interdisciplinary approach to the platform-based economy', 9(4), *Policy and Internet*, 374 (2017)

⁴⁷ Simeon Djankov et al, 'Courts', 118.2 *The Quarterly Journal of Economics*, 453 (2003)

⁴⁸ *ibid.*

⁴⁹ *ibid.*

this approach would be able to produce reliable methods for analysing the complications of platform design.

This approach is operationalised through a study of the contractual terms and observed behaviour of twelve prominent consumer-facing transaction-oriented platforms ('consumer-facing platforms') in India. These are – **Dunzo, Flipkart, Oyo, Grofers, Uber, Amazon, Zomato, Airbnb, UrbanClap, Booking.com, OLX and Blablacar.**

There are four reasons for choosing consumer-facing platforms which enable transactions, as opposed to content-based or social media platforms. First, the transactional nature of such platforms enables the identification of two distinct sides to the platform in most cases. The dynamics of content and social media platforms, on the other hand, are often much more complicated, with the platform mediating users, advertisers, affiliates and other third parties. Second, most of these consumer-facing platforms operate in an environment where established 'offline' regulations govern their physical equivalents, and therefore, offer the appropriate place to examine the response of legal frameworks to such platforms.⁵⁰ For instance, in the case of brick and mortar transactions, legislation such as various State Shops and Establishments Acts, the Indian Contract Act, 1872, the Consumer Protection Act, 1986 and various labour laws exist. However, as discussed above, the difficulty in understanding the contours of platforms results in a limited regulatory approach. *Third*, consumer facing platforms have also consistently been identified as critical drivers of economic growth, and have attracted the most attention from a regulatory perspective.⁵¹ Considering that these

platforms are public-facing, the harms that arise due to their actions are more visceral and apparent. For instance, in the case of Uber, several litigations have taken place in order to examine whether Uber is an employer of its drivers and whether it owes a responsibility to the public for improper behaviour of its drivers.⁵³ Similarly, retail platforms such as Amazon and Flipkart have been embroiled in litigation where it was alleged that they have violated the Foreign Direct Investment policy (FDI Policy) and competition law principles due to predatory pricing and deep discounts.⁵⁴ The regulatory resolution of these issues is often inadequate due to a focus on classifying platforms within the inventory model of e-commerce rather than the marketplace model, and other definitional issues.⁵⁵ Fourth, we believe that the harms caused by consumer-facing platforms are more direct in nature as opposed to harms generated by social media platforms, which tend to be indirect in nature, such as reputational harm, effects of fake news, or harms that affect freedom of speech. These harms, or measures to prevent such harms, are more difficult to identify within statutes and contractual terms, and therefore, are unsuitable for this method. Consequently, this report develops its method largely in the context of consumer-facing platforms identified above.

This approach requires the identification of relevant criteria to organise the aspects of platform design that serve as a variance from the idealised theoretical version of a platform. The next section of this report identifies such criterion the context of consumer-facing platforms by situating the role of digital platforms within the economic understanding of the market.

⁵⁰ Hanna Richard, Andrew Rohm and Victoria L Crittenden, 'We're all connected: The power of the social media ecosystem', 54 *Business Horizons* (2011)

⁵¹ Stephen Miller, 'First Principles for regulating the sharing economy' 53 *Harvard Journal on Legislation*, 148 (2016).

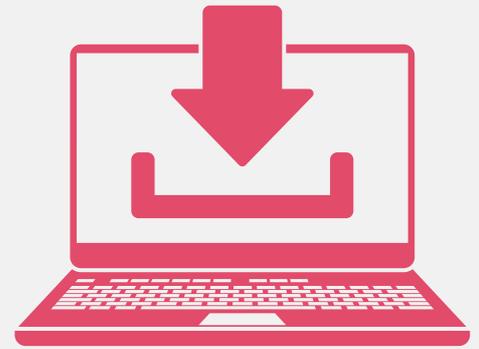
⁵² McKinsey Global Institute, 'Digital India: Technology to transform a connected nation', available at <<https://www.mckinsey.com/~media/McKinsey/Business%20Functions/McKinsey%20Digital/Our%20Insights/Digital%20India%20Technology%20to%20transform%20a%20connected%20nation/MGI-Digital-India-Report-April-2019.ashx>> Accessed 4 January, 2020

⁵³ Brishen Rogers, 'The Social Cost of Uber' [2015] 82 *U of Chicago L.R. Online* https://chicagounbound.uchicago.edu/uclrev_online/vol82/iss1/6> accessed 1 July 2019

⁵⁴ Smriti Parsheera, Ajay Shah and Avirup Bose, 'Competition Issues in India's Online Economy', Working Paper No. 194, National Institute of Public Finance and Policy (2017)

⁵⁵ Sandeep Soni, Amazon, Flipkart in legal soup: Rajasthan Court issues notice for alleged FDI policy violation, *Financial Express*, available at <<https://www.financialexpress.com/industry/sme/amazon-flipkart-in-legal-soup-rajasthan-court-issues-notice-for-alleged-fdi-policy-violation/1723451/>> last accessed on January 10, 2020.

Digital platforms in the market



In order to build a ground-up understanding of digital platforms, it would be essential to identify a broad frame of reference which would enable the contextual identification of important aspects of platform design.

Insights from economics and information sciences suggest that the traditional conceptual units of regulation, such as corporations, co-operatives or commons, are unable to address the unique nature of digital platforms.⁵⁶ In order to appreciate this claim, it is important to situate digital platforms within the schematic framework of industrial organisation and economics. The following sections attempt to set out the position that digital platforms occupy in the structure of the market.

Coase's 'Theory of the Firm' establishes a blueprint for the modern economic understanding of transactions in a market.⁵⁷ He explains how transaction decisions can be taken in two distinct settings: by individuals in a decentralised way in markets, or if such decentralised decision-making is too complex and costly, in a centralised and hierarchical way inside a firm.⁵⁸ The idea of the firm here, refers broadly to formalised industrial organisations,

such as corporations and co-operatives. The choice between whether a transaction decision is taken in a decentralised way in a market, or in a centralised way within a firm, depends on the transaction costs associated with that decision.⁵⁹

Most of the economic literature on the market assumes this boundary between firms and markets to be a default feature.⁶⁰ Therefore, academic literature studying the impact of digital platforms has tended to study either the impact of technology on the internal organisation of a firm, or on the dynamics of the market within which the firm operates.⁶¹ However, recent developments, both in the theory and practice of online platforms, demonstrate how these boundaries may be shifting.⁶² The basic premise here is that with the introduction of digital technology, transaction costs are reduced, and consequently, decisions which were taken within a firm may move out and now take place in the market. Additionally, embedding contractual rules within the immutable logic of software code, and using large-scale data analytics to coordinate decision-making allows digital platforms to move certain transactions outside the structure of the firm, while retaining a degree of control and influence over these transactions.⁶³

⁵⁶ Bertin Martens, 'How online platforms challenge traditional views of the firm and the regulation of market failures', The Internet, Policy and Politics Conference, Oxford Internet Institute, University of Oxford (2016)

⁵⁷ Robert Coase, 'The Nature of the Firm', 4(16) *Economica*, 386 (1937)

⁵⁸ Robert Coase, 'The Nature of the Firm', 4(16) *Economica*, 386 (1937)

⁵⁹ Robert Coase, 'The problem of social cost', 3(1), *Journal of Law and Economics*, 4 (1960)

⁶⁰ Bertin Martens, 'How online platforms challenge traditional views of the firm and the regulation of market failures', The Internet, Policy and Politics Conference, Oxford Internet Institute, University of Oxford (2016)

⁶¹ David S Evans and Michael Noel, 'Defining antitrust markets when firms operate two-sided platforms' [2005] *Colum Bus L Rev* 667; Lapo Filistrucchi et al, 'Identifying two-sided markets' [2013] 36 *World Competition*, 33

⁶² Bertin Martens, 'How online platforms challenge traditional views of the firm and the regulation of market failures', The Internet, Policy and Politics Conference, Oxford Internet Institute, University of Oxford (2016)

⁶³ Cristiano Codagnone and Bertin Martens, 'Scoping the sharing economy: Origins, definitions, impact and regulatory issues', Digital Economy Working Paper No. 1, Institute for Prospective Technological Studies.

This can be witnessed, for example, with Uber's taking to the market for the hiring of independent contractors to provide services which were traditionally provided by employees of a taxi company, who were integrated within the firm.

The consequence of this is that measures to prevent market failures which were previously directed at firms may, for example, become inapplicable to a digital platform. The regulatory debates mentioned throughout this report are situated at this shifting borderline, largely because when analysed within traditional legal frameworks, the issue of allocation of responsibility is evaded by platforms which deny operating as a firm providing the integrated service, but instead claim to be operating as individual actors merely facilitating market transactions by other actors.

Falling information costs, however, create not just disintegration effects, but also simultaneously create some integration effects for digital platforms. For example, economies of scale,⁶⁴ increased product variety,⁶⁵ and the presence of network effects in multi-sided markets⁶⁶ point towards an expansion of the size of the firm.⁶⁷ Economies of scope, which refers to efficiency gains from operating in different markets or having access to multiple datasets which can be analysed jointly, are also responsible for driving the trend of digital platforms choosing to expand the size of their firm.⁶⁸ It has long been theorised that network effects in multi-sided markets tend towards a

winner-takes-all market, which leads to an expansion of the size of the firm.⁶⁹ The disintegration of the firm happens simultaneously by shifting transactions to the market⁷⁰ and retaining influence over these transactions.⁷¹ Where integration is understood as the unification of control,⁷² digital platforms are able to exercise such control over 'market participants', and consequently, even though there may be no legal relationship of control, attributes of the platform may allow it to unify control without contractually integrating such participants within the firm.⁷³ An example of these integration effects can be witnessed from the fact that some of the largest global firms today are digital platforms, such as Uber, Airbnb and Amazon, disrupting vertically integrated firms of the past in their respective sectors. At the same time, these digital platforms claim to be responsible only for coordinating between different sides of the market and evaluate their legal responsibility solely with respect to facilitating a transaction.

The trend of simultaneous integration and disintegration of the firm leads to the shifting boundary between firm and market in the case of digital platforms. When combined with the ability of the digital platform firm to retain influence over 'disintegrated' transactions, it has led to the growth of a new generation of online business models where firms organise markets, instead of behaving like a vertically integrated firm.⁷⁴ Digital platforms, in this conceptualisation, are best understood as firms that specialise in producing coordination services.⁷⁵ Examples of this

⁶⁴ Geoffrey G. Parker, Marshall Van Alstyne and Sangeet Paul Choudary, *Platform: How Networked Markets are Transforming the Economy and How to Make Them Work for You*, W.W. Norton & Co. Ltd (2016), 6.

⁶⁵ Erik Brynjolfsson et al, 'Search and product differentiation at an Internet shopbot' (2004).

⁶⁶ Jean-Charles Rochet and Jean Tirole, *Two-Sided Markets: A Progress Report*, *RAND Journal of Economics*, Vol. 37, No. 3 (2006), 645-667, 645

⁶⁷ Bertin Martens, 'How online platforms challenge traditional views of the firm and the regulation of market failures', *The Internet, Policy and Politics Conference*, Oxford Internet Institute, University of Oxford (2016)

⁶⁸ Lina M Khan, 'Amazon's Antitrust Paradox' [2016] 126 *Yale LJ*, 710

⁶⁹ Lina M Khan, 'Amazon's Antitrust Paradox' [2016] 126 *Yale LJ*, 710

⁷⁰ Bertin Martens, 'How online platforms challenge traditional views of the firm and the regulation of market failures', *The Internet, Policy and Politics Conference*, Oxford Internet Institute, University of Oxford (2016)

⁷¹ Tarleton Gillespie, 'Platforms are not intermediaries', 2 *Georgetown Law and Technology Review*, 198 (2018)

⁷² Robert Gibbons, 'Four formalizable theories of the firm?' 58(2), *Journal of Economic Behaviour and Organisation*, 200 (2005)

⁷³ Lina M Khan, 'Amazon's Antitrust Paradox' [2016] 126 *Yale LJ*, 710

⁷⁴ Bertin Martens, 'How online platforms challenge traditional views of the firm and the regulation of market failures', *The Internet, Policy and Politics Conference*, Oxford Internet Institute, University of Oxford (2016)

⁷⁵ Bertin Martens, 'How online platforms challenge traditional views of the firm and the regulation of market failures', *The Internet, Policy and Politics Conference*, Oxford Internet Institute, University of Oxford (2016)

business model include prominent names like Uber and Ola as creating markets for transport service providers, Airbnb and Booking.com as accommodation markets, Amazon mTurk and UrbanClap as online labour marketplaces as well as more minimal platforms such as OLX and Quikr as marketplaces for second-hand goods. All of these are instances of digital platforms which do not themselves provide the underlying service but coordinate the provision of this service. These platforms, therefore, exercise control, both over the service provider, as well as the way in which the customer is matched with the service provider, while legally being responsible for neither of these factors.

Consequently, in order to truly understand the role of digital platforms in the market, it is important to analyse this shifting boundary. Legal responses to the shifting boundary have tended to be woefully lacking in nuance related to this shift. This has resulted in regimes which either shift wholesale responsibility onto the digital platform for market failures, or which exonerate such platforms of responsibility where it might be appropriate.

Importantly, digital platforms exist in a heterogeneous manner with a lot of variety between the design, role and structure of different digital platforms. However, most instances where platforms have been statutorily recognised lack any basis to classify such platforms or recognise the variance between the roles occupied by different platforms. Therefore, it is important to situate such platforms within the market, using a framework which is adaptable to platform design, and is structured from a regulatory perspective.

Identifying definitional criteria

Based on this economic overview, we can glean the need to identify criteria which can help organise insights about digital platforms and

situate them in the contemporary understanding of the market. In order to do this, it is important to analyse the forces that animate the shifting boundary between firm and market mentioned in the section above.

We apply our earlier outlined approach of tracking variance from the idealised theoretical version of a platform in order to appropriately situate platforms based on their design aspects. As outlined earlier, digital platforms, in their idealised theoretical version, resemble a 'stage'⁷⁶ which merely performs the function of allowing two parties to connect to each other, without providing the underlying service or controlling the transaction.⁷⁷ However, digital platforms in the contemporary market structure differ from this basic articulation in two distinct respects. First, they 'integrate' market participants into the platform by exercising control and supervision over them. This may be through contractual technological or economic means, thereby being responsible for a portion of the underlying service by unifying control over the service provider. Second, they exercise influence over the connection itself, by mediating the user experience, promoting certain kinds of transactions, and using their own algorithms to 'match' individuals, amongst other ways of exercising this influence.⁷⁸ Throughout this report, we use the terms 'Integration' and 'Influence' to refer to these functions respectively. A study of these two aspects of digital platforms would help illuminate the shifting boundary between firm and market as well. The degree to which market participants are 'integrated' by a digital platform represents how similar that platform is, in terms of unification of control, to erstwhile vertically integrated firms. On the other hand, the influence exercised by the platform over a transaction represents the degree to which it is organising the market, which is a measure of how specialised its coordination services are. Taken together, these aspects of digital platforms explain this shifting boundary by explaining the

⁷⁶ Jonas Anderssen Schwarz, 'Platform logic: An interdisciplinary approach to the platform-based economy', 9(4), *Policy and Internet*, 374 (2017)

⁷⁷ *ibid.*

⁷⁸ Tarleton Gillespie, 'Platforms are not intermediaries', 2 *Georgetown Law and Technology Review*, 198 (2018)

structural nature of the digital platform firm (what it is), as well as its functional behaviour (what it does). Consequently, this report suggests that these concepts can provide a workable taxonomical understanding of platforms for the purpose of developing tools which can aid regulation, which is done in the following sections of the report.

Metrics to track variance from idealised theoretical version of a platform

Integration: Integration, or 'unification of control', or 'product integration' refers to the degree to which the platform is responsible for the underlying service/good it offers, by enumerating aspects of platform design which create control over the service provider/logistical services associated with the service/good.

Influence: Influence, or 'influence over transaction' refers to the degree to which the platform influences the 'connection' and 'transaction' between two sides of the platform, by enumerating aspects of platform design which structure the user experience, promote certain kinds of transactions or regulate the information on the platform.

The experience of the law



As digital platforms become more relevant to the society and economy, their regulation and legal treatment offer useful insights on how courts and lawmakers understand their structural and operational aspects. In this part, the evolution of legal vocabulary with respect to consumer-facing platforms is analysed.

In India, digital platforms across sectors are witnessing significant regulatory attention. From holistic guidelines like the draft e-Commerce Policy which seeks to govern the entire e-commerce industry,⁷⁹ to specialised guidelines for potentially regulating public transport—⁸⁰ the suite of disparate laws which seek to regulate many aspects of digital platforms in India indicate a fragmented understanding of digital platforms.

The experience of the law outlines some significant conceptual issues which affect the extent to which legal structures are able to effectively understand digital platforms. In this section, we outline two broad trends that have been witnessed in the context of the regulation of digital platforms – a conceptual fragmentation of regulation, and a crude assumption of sophistication in platform design – which undermine the quality and efficacy of any regulation. These trends are substantiated by reference to two sectoral case studies of Indian legislation. Finally, this section goes on to

discuss the manner in which judicial reasoning has approached this issue is discussed.

Conceptual Fragmentation of Regulation

In the absence of a working definition of digital platforms, lawmakers across the globe appear to use both horizontally applicable laws and sector-specific regulations in an attempt to curb immediate challenges posed by platforms to markets and society. While a number of insights about the behavior of digital platforms are generated in literature related to competition law, regulatory initiatives aimed at such platforms are not limited to competition law.

The European Union has recently, proposed the formulation of regulations aimed at ‘gate-keeping’ platforms.⁸¹ These proposals appear to borrow from developments in competition law jurisprudence about digital platforms. However, the official communications of the EU also make reference to issues of illegal content online, cross-border provision of services and general principles of intermediary liability.⁸² Academic literature dealing with these specific issues also often identifies the relationship between various issues in the context of digital platforms, however, an integrated conceptual framework towards tackling these issues appears to be lacking.⁸³ For example, it is well recognized that

⁷⁹ Department for Promotion of Industry and Internal Trade, ‘Draft National E-Commerce Policy: India’s Data for India’s Development’ (2019) <https://dipp.gov.in/sites/default/files/DraftNational_e-commerce_Policy_23February2019.pdf> accessed on 3 January 2020; Press Trust of India, ‘Government to come out with national e-commerce policy within 12 months’, The Economic Times, 25 June 2019 <<https://economictimes.indiatimes.com/news/economy/policy/government-to-come-out-with-national-e-commerce-policy-within-12-months/articleshow/69942932.cms?from=mdr>> accessed on 3 January 2020.

⁸⁰ Naveen Menezes, ‘Uber bus or Ola shuttle, anyone?’ Bangalore Mirror, 2 January, 2020 <https://bangaloremirror.indiatimes.com/bangalore/cover-story/uber-bus-or-ola-shuttle-anyone/articleshow/72893821.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst> accessed on 3 January 2020.

⁸¹ Commission launches consultation to seek views on Digital Services Act package, Press release of the European Commission, available at <https://ec.europa.eu/commission/presscorner/detail/en/ip_20_962> Accessed 2 June, 2020

⁸² Commission launches consultation to seek views on Digital Services Act package, Press release of the European Commission, available at <https://ec.europa.eu/commission/presscorner/detail/en/ip_20_962> Accessed 2 June, 2020

⁸³ Bertin Martens, ‘How online platforms challenge traditional views of the firm and the regulation of market failures’, The Internet, Policy and Politics Conference, Oxford Internet Institute (2016) <<http://blogs.oii.ox.ac.uk/ipp-conference/sites/ipp/files/documents/Martens%2520OII%2520platforms%2520and%2520regulation%2520%2520300816.pdf>> accessed on 3 January 2020.

issues of consumer protection in relation to digital platforms, which often primarily focus on how responsibility should be allocated in a business exchange conducted through a platform, may be exacerbated in the case of dominant platforms. However, an integrated approach which canvasses these issues within the bounds of a coherent conceptual framework appears to be lacking.

There have been some attempts at creating overarching umbrella frameworks for regulation of digital platforms. The United Kingdom (UK), for instance has released policy documents such as the UK White Paper on Online Harms which advocates for a holistic regulatory framework for entities in the digital economy, specifically from the point of view of tackling online harms.⁸⁴ Among other things, the proposed model seeks to create an independent regulatory authority to address online harms and govern platforms. The proposed law covers a wide range of issues from cyber bullying to data theft. Similarly, the French Digital Republic Bill is a holistic law which seeks to govern various aspects of platform operations and their relationship with society and economy, including net neutrality, data governance, platform fairness (particularly towards consumers), access to digital technology, efficiency of service delivery using technology etc.⁸⁵ These laws are horizontal regulations which are largely platform-agnostic. These can be contrasted with more sector-specific privacy and data protection legislation,⁸⁶ fake news and speech regulation legislation,⁸⁷ financial services, and fraud protection legislation⁸⁸ that govern various platform services.

In many instances, owing to a multitude of horizontal and sector-specific regulations, the

same platform is regulated differently in different countries or even different states of the same country. The regulation of platforms such as Facebook and Uber are key examples of this trend. In terms of speech regulation, social media platforms like Facebook and Twitter are heavily scrutinised in countries like Germany,⁸⁹ where the principles of intermediary liability have slowly given way to the concept of intermediary responsibility, while in the US and other jurisdictions such platforms are exempted from liability for the activities of third party users.⁹⁰ In the case of Uber, different local laws recognise and regulate the platform differently. In India for instance, Uber complies with a host of local motor vehicle and safety laws, and Uber drivers undergo heavy scrutiny⁹¹ which is in stark contrast with how the platform is regulated in the US.⁹² Some reasons for differing legal treatment include— platforms' evolving business practices and roll out of distinct services in different countries, and in the case of consumer platforms— their complex interactions with local laws which pre-date their existence.

In India, the regulatory attention to consumer-facing digital platforms has incrementally contributed to an evolving taxonomy of digital platforms. There is, at present a massive gap between how lawmakers understand platforms and continue to regulate them, and how platforms identify themselves. In the absence of a consistent workable definition of digital platforms, legal vocabulary often struggles to keep up. The following sections discuss this tension, specifically the fragmented statutory regime in India, contemporary laws which assume platform sophistication (and control), and gaps in judicial evaluation of platforms.

⁸⁴ UK Government, 'Online Harms White Paper' <<https://www.gov.uk/government/consultations/online-harms-white-paper>> accessed on 3 January 2020.

⁸⁵ Carol A. F. Umhoefer, 'France adopts Law for a Digital Republic: key data provisions are a jump-start on the GDPR', DLA Piper, 1 November, 2016 <<https://www.dlapiper.com/en/us/insights/publications/2016/11/france-adopts-law-for-a-digital-republic/>> accessed on 3 January 2020.

⁸⁶ In jurisdictions like EU General Data Protection Regulation (GDPR) (EU), Canada The Personal Information Protection and Electronic Documents Act, 2000 (Canada) (PIPEDA) and South Africa Protection of Personal Information Act, 2013 (South Africa) (POPI).

⁸⁷ Protection from Online Falsehoods and Manipulation Act, 2019 (Singapore); Network Enforcement Act, 2017 (Germany).

⁸⁸ IRS, 'Cryptocurrency Guidelines' (2019) (US) <<https://www.irs.gov/newsroom/virtual-currency-irs-issues-additional-guidance-on-tax-treatment-and-reminds-taxpayers-of-reporting-obligations>> accessed on 3 January 2020; Prevention of Money Laundering Act 2002, Payment and Settlement Systems Act, 2007, RBI Guidelines on Regulation of Payment Aggregators and Payment Gateways, 2020 <<https://rbidocs.rbi.org.in/rdocs/notification/PDFs/NT17460E0944781414C47951B6D79AE4B211C.PDF>> accessed 19 June 2020, RBI Directions regarding Registration and Operations of NBFC - Account Aggregators under section 45-IA of the Reserve Bank of India Act, 1934 <[https://www.rbi.org.in/Scripts/bs_viewcontent.aspx?Id=3142#:~:text=a\)%20Account%20Aggregator%20shall%20ensure,and%20the%20Financial%20Service%20providers.>](https://www.rbi.org.in/Scripts/bs_viewcontent.aspx?Id=3142#:~:text=a)%20Account%20Aggregator%20shall%20ensure,and%20the%20Financial%20Service%20providers.>)> accessed 19 June 2020.

⁸⁹ Network Enforcement Act, 2017 (Germany).

⁹⁰ Communications Decency Act, 1996 (US).

⁹¹ Shreya Nandi, 'Motor Vehicles Bill gives govt power to regulate Uber, Ola', Livemint, 1 August 2019 <<https://www.livemint.com/news/india/motor-vehicles-bill-gives-govt-power-to-regulate-uber-ola-1564630404595.html>> accessed on 3 January 2020.

⁹² Madhura Karnik, 'Uber in India is fundamentally different from Uber in the West', Quartz India, 17 March 2017 <<https://qz.com/india/926220/uber-in-india-is-fundamentally-different-from-uber-in-the-west/>> accessed on 3 January 2020.

Crude assumption of sophistication in platform design

In India, there is no single working definition of a digital platform. The meaning of the term changes with context, technological architecture, and relationship with consumers and markets. Most digital platforms such as Facebook, Amazon, Uber, Zomato etc. satisfy the definition of 'intermediaries' as defined in the Information Technology (Intermediaries Guidelines) Rules, 2011 (Intermediary Rules) and the Information Technology Act, 2000 (IT Act). As per the definition, an intermediary receives, stores and transmits 'electronic records' on behalf of a person, and provides services with respect to such records. An intermediary, according to the definition, can include search engines, online payment sites, online auction sites, online marketplaces etc. While it does not explicitly include consumer-facing digital platforms, popular platforms like Amazon, Uber and Facebook have been interpreted to be intermediaries as per Indian law. Subject to certain conditions and due-diligence obligations laid down in the IT Act,⁹³ such platforms are also protected by the 'safe harbour' principle which exempts intermediaries from being liable for any information or data hosted by a third party on the platform. As discussed above, these Intermediary Rules give a sector-agnostic definition of intermediaries which assume passive participation of digital platforms— a point of contention which is now being debated in the context of the increasing sophistication of digital platforms.

However, in recognition of the increasing importance of digital platforms, various regulations seem to be placing obligations on such platforms in relation to the ways in which those platforms may be conducting their activities. For example, in relation to e-commerce platforms, the draft e-Commerce Policy proposed by the Government of India further imposes a series of obligations on e-

commerce platforms to address issues that arise from improper supplier behaviour – ranging from information disclosure requirements, liability to refund consumers for counterfeit products, and a notice-takedown system for copyright infringing work.⁹⁴ The imposition of these obligations assumes that all e-commerce platforms which are envisaged to be covered by these rules would be designed in a manner where these obligations could sensibly be applied to these platforms. For example, e-commerce platforms like OLX and Craigslist operate as a minimal exchange, much like the classified's section of a newspaper. On the other hand, platforms like Amazon and Flipkart establish complex marketplaces which, by design, are much more specialized than the minimal design of Craigslist. These design features not only invite different kinds of sellers to the platform (which should be factored into the regulation of the activities of these sellers), but also encourage fundamentally different kinds of transactions. However, because the e-commerce policy fails to recognize these nuanced differences in the design of platforms, it creates monolithic legal rules which may be unsuited to particular platforms. The above example, as well as the case studies outlined below, show that emerging laws in India which seek to govern digital platforms assume a certain level of consistency and commonality across platform designs. This is not observed to be true. Even among e-commerce platforms, as seen in the case of Amazon and OLX, varying degrees of control is exercised over buyers and sellers. Laws which seek to govern such platforms should recognise this nuance in platform behaviour, and the degree of influence exercised over platform users. When laws do not recognize these nuances and operate from a place where they make crude assumptions about the design of these platforms, the result is a confused position of law that makes tenuous analytical claims to apply principles of intermediary liability to online retail platforms.

⁹³ Information Technology (Intermediaries Guidelines) Rules, 2011

⁹⁴ Indian Draft e-Commerce Policy

Case Studies Of Platform Regulation In India

Platform regulation in India, particularly of consumer-facing platforms, has been largely reactive to consumer harms or the platforms' impact on existing physical markets and market players. In this section, emerging regulations in two sectors— On-demand food and beverage delivery (FnB), and cab aggregation have been examined to provide a glimpse of the emerging regulatory trends related digital platforms in India which are centred around their ability to reveal immediate harm and market impact.

Food and Beverage sector

In India, ever since their inception, platforms such as Zomato, Swiggy and FoodPanda have largely evaded regulatory scrutiny. They have caught the attention of India's food safety regulator, the Food Safety and Standards Authority of India (FSSAI) only recently. Such platforms are now recognised as 'Food Business Operators' (FBO) under the Food Safety and Standards Act, 2006 (FSS Act).⁹⁵ As per the FSS Act, a FBO is "a person by whom the (food) business is carried on or owned and is responsible for ensuring the compliance of this Act, rules and regulations".⁹⁶ Further, the e-Commerce FBO Guidelines issued by the FSSAI in 2017 (FSS Guidelines) define key terms associated with the business models of FnB platforms. These Guidelines offer two definitions— 'Marketplace model of e-commerce FBO'⁹⁷ and 'Inventory based model of e-commerce FBO.'⁹⁸

A 'marketplace model' is an 'information technology platform by an e-commerce FBO on a digital and electronic network to act as a facilitator between the buyer and seller/brand owner/manufacturer'. This definition also covers platforms which provide services 'to sellers/brand owners/ product manufacturers in respect of warehousing, logistics, order fulfilment, payment selection, facilitator of delivery and other services.'⁹⁹ An 'inventory based model' refers to 'an e-commerce activity where inventory of food products and food services is owned by e-commerce FBOs and is sold to consumers directly'.¹⁰⁰ The FSSAI has stated that these Guidelines are applicable to 'third-party e-commerce platform providers'.¹⁰¹ This would include Zomato and Swiggy which satisfy the marketplace definition as provided in the Guidelines.

This is a significant development as these platforms will now have to comply with relevant provisions of the FSS Act, and thus be subject to inspections and scrutiny by the regulator.¹⁰² Further, they are obligated to ensure that contracts signed with partner restaurants also comply with existing FSSAI regulations, to promptly address consumer complaints, and to ensure that food of an adequate quality is sold through their platform.¹⁰³ Such platforms must also roll out an effective grievance redressal mechanism and handle consumer complaints efficiently.¹⁰⁴ Lastly, they have the responsibility to de-list and remove food items which are not in compliance with the FSS Act.

⁹⁵ Food Safety and Standards Act, 2006, (India), s 3(o); See also Food Safety and Standards Authority of India, 'Guidelines for Operating E-Commerce Food Business Operators' (2017) <<https://www.fssai.gov.in/upload/advisories/2018/02/5a968f14cc994189.pdf>> accessed on 3 January 2020.>

⁹⁶ Food Safety and Standards Act, 2006, (India), s 3(o).

⁹⁷ Food Safety and Standards Authority of India, 'Guidelines for Operating E-Commerce Food Business Operators' (2017) <<https://www.fssai.gov.in/upload/advisories/2018/02/5a968f14cc994189.pdf>> accessed on 3 January 2020, cl 1.4.

⁹⁸ Food Safety and Standards Authority of India, 'Guidelines for Operating E-Commerce Food Business Operators' (2017) <<https://www.fssai.gov.in/upload/advisories/2018/02/5a968f14cc994189.pdf>> accessed on 3 January 2020, cl 1.5.

⁹⁹ Food Safety and Standards Authority of India, 'Guidelines for Operating E-Commerce Food Business Operators' (2017) <<https://www.fssai.gov.in/upload/advisories/2018/02/5a968f14cc994189.pdf>> accessed on 3 January 2020, cl 1.4.

¹⁰⁰ Food Safety and Standards Authority of India, 'Guidelines for Operating E-Commerce Food Business Operators' (2017) <<https://www.fssai.gov.in/upload/advisories/2018/02/5a968f14cc994189.pdf>> accessed on 3 January 2020, cl 1.5.

¹⁰¹ Food Safety and Standards Authority of India, 'Minutes of the Meeting held on 18.11.2019 at 2:30 pm with E-Commerce FBOs regarding Food Safety Compliance' (2019) < [fssai.gov.in/upload/advisories/2019/11/5de0c5bb717faLetter_ECommerce_FBO_Minutes_29_11_2019.pdf](https://www.fssai.gov.in/upload/advisories/2019/11/5de0c5bb717faLetter_ECommerce_FBO_Minutes_29_11_2019.pdf)> accessed on 3 January 2020.

¹⁰² Ratna Bhushan, 'Modi government writes new rule book for BigBasket, Swiggy & Zomato', The Economic Times, 19 December 2019 <<https://economictimes.indiatimes.com/news/economy/policy/food-inspector-tightens-ecommerces-safety-belt/articleshow/67280363.cms>> accessed on 3 January 2020.

¹⁰³ Food Safety and Standards Authority of India, 'Minutes of the Meeting held on 18.11.2019 at 2:30 pm with E-Commerce FBOs regarding Food Safety Compliance' (2019) < [fssai.gov.in/upload/advisories/2019/11/5de0c5bb717faLetter_ECommerce_FBO_Minutes_29_11_2019.pdf](https://www.fssai.gov.in/upload/advisories/2019/11/5de0c5bb717faLetter_ECommerce_FBO_Minutes_29_11_2019.pdf)> accessed on 3 January 2020.

¹⁰⁴ Food Safety and Standards Authority of India, 'Minutes of the Meeting held on 18.11.2019 at 2:30 pm with E-Commerce FBOs regarding Food Safety Compliance' (2019) < [fssai.gov.in/upload/advisories/2019/11/5de0c5bb717faLetter_ECommerce_FBO_Minutes_29_11_2019.pdf](https://www.fssai.gov.in/upload/advisories/2019/11/5de0c5bb717faLetter_ECommerce_FBO_Minutes_29_11_2019.pdf)> accessed on 3 January 2020.

Transportation and cab aggregation

Uber describes itself as a technology company which does not provide 'transportation or logistics services' and does not function as a 'transportation carrier'.¹⁰⁵ It also maintains that all partner drivers are independent contractors who are not employed by Uber. This position should exempt Uber from complying with labour legislation, or motor vehicle laws as it is only a software application which facilitates cab aggregation. However, emerging Indian laws at the central and state level do not take this position into account and assume significant control by Uber without examining the specifics of this control.

In the case of Uber, India has witnessed multiple iterations of regulation to address many functional realities of the platform. There could be many reasons for this. While Uber is a global corporation which is operating in many countries across the world, its business models vary widely. In India, unlike the US, most drivers use the platform as a primary source of income. In this sense, Uber could be categorised as a cab-aggregation platform which matches demand and supply by assimilating drivers as independent contractors. At the same time, many lawmakers are now seeing this platform to be providing full time employment to its drivers.¹⁰⁶

In a bid to ensure that newer aspects of digital platforms, especially relationships with partner-drivers are fair and equitable, the Government of India is working on guidelines for cab-

aggregators. This framework intends to regulate the commission charged by platforms like Uber from their driver partners, and outlines conditions for passenger safety, driver registration etc.¹⁰⁷

Further, recent amendments to the Motor Vehicles Act, 1988¹⁰⁸ have taken into account the unique role played by platforms like Ola and Uber in the transportation sector. The amendment law defines 'aggregators' as a 'digital intermediary or market place for a passenger to connect with a driver for the purpose of transportation'.¹⁰⁹

Platforms are now required to obtain licenses from a requisite authority to continue operating as a service provider.¹¹⁰ Further, in some instances, state governments have also sought to regulate surge pricing,¹¹¹ driver verification,¹¹² and vehicle registration,¹¹³ and have even banned platform operations on account of non-compliance with extant motor vehicle laws in the past.¹¹⁴ For instance, in 2014, the Delhi Government modified its Radio Taxi Scheme to cover platforms like Ola and Uber and imposed obligations pertaining to grievance redressal, customer safety, transparent fare meters and the presence of a physical office in the city.¹¹⁵ Subsequently, platforms like Uber have also introduced background checks for partner drivers and have conducted their police verification, and introduced in-app safety features and emergency response teams to ensure customer safety following allegations of rape and harassment of passengers.¹¹⁶ It is pertinent to point out that the above mentioned regulatory debates

¹⁰⁵ 'Uber Legal' <<https://www.uber.com/en-IN/legal/other/uber-plus-india-en/>> accessed on 3 January 2020.

¹⁰⁶ Illustratively, as opposed to New York, where many city residents with day jobs participate as drivers during rush hour when demand is high; see Madhura Karnik, 'Uber in India is fundamentally different from Uber in the West', Quartz India, 17 March 2017 <<https://qz.com/india/926220/uber-in-india-is-fundamentally-different-from-uber-in-the-west/>> accessed on 3 January 2020

¹⁰⁷ Kate Conger and Noam Scheiber, 'California Bill Makes App-Based Companies Treat Workers as Employees', New York Times, 11 September 2019 <<https://www.nytimes.com/2019/09/11/technology/california-gig-economy-bill.html>> accessed 19 June 2020.

¹⁰⁸ Advisory for licensing, Compliance and liability of On-demand Information Technology based Transportation Aggregator [Taxis (4+1)] operating Within the jurisdiction of India' <https://morth.nic.in/sites/default/files/Advisory_for_licensing.pdf> accessed on 3 January 2020.

¹⁰⁹ Motor Vehicles (Amendment) Act, 2019 (India).

¹¹⁰ Motor Vehicles Act, 1988 (India), s 2(1A).

¹¹¹ Motor Vehicles Act, 1988 (India), s 93 read with Motor Vehicles (Amendment) Act, 2019 (India), s 36.

¹¹² 'Ola, Uber to deactivate surge pricing during odd-even scheme', Economic Times in Delhi, 29 November 2019 <https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/ola-uber-to-deactivate-surge-pricing-during-odd-even-scheme-in-delhi/articleshow/71862650.cms?utm_source=content-of-interest&utm_medium=text&utm_campaign=cppst> accessed 19 June 2020.

¹¹³ Maharashtra City Taxi Rule, 2017 <<https://transport.maharashtra.gov.in/Site/Upload/GR/mahacts17%20.pdf>> accessed 19 June 2020.

¹¹⁴ Motor Vehicles (Amendment) Act, 2019, available at <http://egazette.nic.in/WriteReadData/2019/210413.pdf>

¹¹⁵ Uber banned in Delhi over taxi driver 'rape', BBC 8 December 2014 <<https://www.bbc.com/news/world-asia-india-30374070>> accessed 19 June 2020; Chiranjeevi Kulkarni, 'Karnataka govt bans carpooling by Ola and Uber', Deccan Herald 28 June 2019 <<https://www.deccanherald.com/state/top-karnataka-stories/karnataka-govt-bans-carpooling-by-ola-and-uber-743435.html>> accessed 19 June 2020

¹¹⁶ <https://transport.delhi.gov.in/sites/default/files/All-PDF/City%2BTaxi%2BScheme.pdf>

¹¹⁷ Saritha Rai, 'Uber Gets Serious About Passenger Safety In India, Introduces Panic Button', Forbes, 12 February 2015 <<https://www.forbes.com/sites/saritharai/2015/02/12/uber-gets-serious-about-passenger-safety-in-india-introduces-panic-button/#243ab9ac3cf8>> accessed on 3 January 2020.

at the central and state level in this domain are on-going. Further, the patchwork of laws that Uber and Ola are obligated to comply with vary from one state to the other, given that the power to make laws on this subject falls within List II of the Seventh Schedule of the Constitution.¹¹⁸

Emerging laws for cab aggregators, including amendments to extant motor vehicle laws, which impose additional obligations indicate that lawmakers are increasingly of the opinion that such platforms exercise some level of control over partner-drivers and are accountable to their customers. These obligations are in direct conflict with the stated position of these platforms, that they are mere intermediaries which possess the facilitative technology and do not interact with the physical environment that they operate in. The landscape of regulation as seen in this section presents a fragmented picture due to the evolution of sectoral legislation. This is largely in the domain of quality control, entry barriers, safety of customers, and management of vendors/third-party service providers. As a consequence, regulatory initiative is likely to remain constrained within the particular sectoral regime within which there is any movement for reform. This may inhibit the development of a comprehensive framework of legal reform which identifies impacts of platform design extending beyond the immediate interaction with sectoral obligations.

Judicial recognition of platform attributes

At the heart of the common law tradition is the idea that the law develops in an iterative process through being reinterpreted in different factual contexts. The common law, as it existed at the turn of the 19th century, was a collection of precedents which adapted the same legal principles to different factual contexts, in the process, developing sophisticated legal rules to deal with these different contexts. This phenomenon can be witnessed in the way in which courts have been situated in disputes

about digital platforms. As has already been outlined above, judges often lack statutory guidance or a common conceptual framework when they are faced with issues related to digital platforms. These issues often end up being litigated when they are 'flashpoint' issues and represent controversial aspects of the manner in which digital platforms function. In these contexts, courts have had to, in an ad-hoc fashion, analyse aspects of digital platforms that were invoked in the course of the litigation. Therefore, there is a rich body of judicial reasoning which engages with aspects of platforms which were relevant to various litigations.

In 2008, the Delhi High Court in its decision in *Avnish Bajaj v. State (Avnish Bajaj)*¹¹⁹ held a website Baze.com liable for hosting illegal and harmful content on its platform. This decision exposed courts' limited understanding of websites' use and storage of information, especially by third party users. These findings led to a recognition that certain digital intermediaries had to be protected from unlawful activities of independent parties using their platform. This judgment is claimed by many to have led to the formulation of the Information Technology (Intermediary Guidelines) Rules, 2011.

However, more than a decade after Avnish Bajaj, Indian courts are still struggling with judicial responses to platform realities. These judgments, regardless of their palatability to platforms or the society at large, play a crucial role in understanding the evolving taxonomy of platforms. As seen in this section, courts tend to look at platforms differently based on the nature of the dispute, the specific harm, or the law brought into question.

In the cases on digital or online platforms studied in India, courts have used various features or attributes of platforms to analyse their functioning and measure their influence over platform participants. These include—ownership of goods and services,¹²⁰ exclusivity

¹¹⁸ List II, Seventh Schedule, Constitution of India, 1950.

¹¹⁹ *Avnish Bajaj v State*, 2008 SCC Online Del 688.

¹²⁰ *Fast Track Call Cab Pvt. Ltd. v. ANI Technologies Pvt. Ltd.*, 2017 SCC OnLine CCI 36

contracts with vendors,¹²¹ revenue sharing with vendors,¹²² determination of tariff structures,¹²³ specifying penalties for certain kinds of behaviour¹²⁴ and exercising influence over placement and presentation, amongst others.¹²⁵

Among the cases decided by Indian courts so far, we see a general ambiguity in judicial conceptualisation of digital platforms, and consequently, inability of courts to devise new tools or use existing laws in addressing immediate challenges posed by them. We also see that existing laws in India are not sufficient to address the needs of an economy reshaped by the digital platform as a unit of commercial organisation. These issues are discussed below.

Ambiguity in judicial conceptualisation of digital platforms

Horizontal laws such as the Intermediary Rules under the IT Act are broadly worded and include various platforms from the likes of Facebook and Amazon to internet service providers and cyber cafes. Further, obligations as laid down in the Intermediary Rules are not tailored to specific platform behaviour and characteristics. This has made the interpretation of the Intermediary Rules a significant challenge for courts in India. Here, courts have attempted to pin-point the nature of active or passive roles of independent platforms which claim to be aggregators or hosting platforms.

For instance, in the case of e-commerce platforms, a one-size-fits-all approach ignores the specific nature of economic activity that is undertaken on retail platforms. Under the Intermediary Rules, e-commerce platforms like Amazon and Flipkart are protected by a general safe harbour from liability for infringing or harmful content. To put it simply, digital platforms which are passive in nature, i.e., they

do not initiate communications or actively influence user interactions are protected. However, the standard of 'active participation' is unclear from judicial reasoning and regulatory practice. A recognition of the role of retail platforms in the infrastructure of the market invokes a discussion about the responsibility of such platforms, specifically with respect to vetting suppliers and monitoring their platforms for illegal or infringing activity. While some retail platforms operate as pure intermediaries with no control over the terms and conditions of access, most successful retail platforms employ tools which would indicate 'active' participation. These would include determination of prices, exclusivity contracts with vendors/service providers, and a screening procedure to allow sellers access to the marketplace. The nature of the liability that flows from performing this function must, therefore, be outlined with sufficient clarity.

For instance, the Delhi High Court in *Christian Louboutin SAS v. Nakul Bajaj (Christian Louboutin)*¹²⁶ recognised that vetting suppliers and ensuring that the goods they sell are genuine would be construed as 'active involvement' and would erode the safe harbour protection for online retail platforms.¹²⁷ Most e-commerce players like Amazon and Flipkart vet their suppliers to a varying degree. This raises significant questions of the applicability of the safe harbour to such platforms. Are e-commerce platforms passive actors for the purpose of goods and service aggregation, and last-mile delivery? They may occupy a passive role with respect to consumer feedback posted on the platform, and a more active role when it comes to vetting suppliers and providing logistical support for suppliers listed on the platform. In this context, their classification as intermediaries under the IT Act merits greater scrutiny.

¹²¹ Fast Track Call Cab Pvt. Ltd. v. ANI Technologies Pvt. Ltd., 2017 SCC OnLine CCI 36

¹²² Fast Track Call Cab Pvt. Ltd. v. ANI Technologies Pvt. Ltd., 2017 SCC OnLine CCI 36

¹²³ Fast Track Call Cab Pvt. Ltd. v. ANI Technologies Pvt. Ltd., 2017 SCC OnLine CCI 36

¹²⁴ Stelling Technologies v. Indian Railway Catering and Tourism Corporation, 2019 SCC OnLine Del 7921

¹²⁵ Matrimony.com Limited v. Google LLC, 2018 SCC OnLine CCI 1.

¹²⁶ Christian Louboutin SAS v Nakul Bajaj, 2018 SCC OnLine Del 12215.

¹²⁷ SLFC, 'Intermediary Liability 2.0: A Shifting Paradigm' (2019) <https://sflc.in/sites/default/files/reports/Intermediary_Liability_2_0_-_A_Shifting_Paradigm.pdf> accessed on 3 January 2020.

In *Christian Louboutin*, the court analysed the structural and functional aspects of digital platforms in great detail. In this case, while analysing the applicability of existing laws, including exemptions from intermediary liability (as laid down in the IT Act), the court listed 21 key features of platforms— such as *identifying sellers, using their own packaging, giving discounts, displaying advertisements of the mark, providing reviews*¹²⁸— which would erode this safe harbour for online retail platforms. The court stated the standard would be triggered if a large number of these factors are identified in the business of an e-commerce platform. However, the judgment does not provide any analytical rationale behind the selection of these 21 activities and remains vague about the standard of active participation. Subsequent cases that have adopted this list of activities, further, have failed to add to judicial reasoning on this issue.¹²⁹

While the question of active and passive participation remains unanswered, courts have on occasion acknowledged the role of certain consumer-facing platforms to be more active than passive. This can be contrasted with the role of social media platforms like Facebook and Instagram which have on occasion been recognized by courts as ‘passive’ actors and have been granted exemption from liability (for hosting infringing third party content) under the IT Act.¹³⁰

Inadequacy of existing laws

Globally, judicial analysis of platform characteristics has been more intensive in competition law cases, where the economic

nature of the analysis permits courts to incorporate literature from a wider academic discourse, as opposed to cases involving traditional legal analysis where definitional constraints operate on courts. It is only in the context of antitrust analysis that regulators have looked beyond the functional definition and inquired into the true ramifications of a multi-sided marketplace, including an analysis of indirect network effects,¹³¹ the central role in market governance,¹³² and the incentive to create competitive bottlenecks by preventing multi-homing.¹³³ However, these insights have rarely travelled to other kinds of disputes, leading to a lack of judicial recognition of their unfair bargaining power in the context of contractual relationships¹³⁴ or consumer protection-related issues.¹³⁵

Therefore, even where characteristics of marketplace platforms like the role of network effects, economies of scope and market power have been judicially recognised, the incorporation of these aspects within the legal framework has been myopic at worst and limited at best. Legal tests have not always evolved in line with the expanding frontiers of factual understanding thus paving the way for an ad hoc, reactive and patchwork of doctrinal understanding of digital platforms.

In India, with respect to platforms like Amazon and Flipkart, laws are still struggling to cope with their expansion and consumer interaction. In a series of cases before the Competition Commission of India (CCI),¹³⁶ online marketplaces were considered merely an alternative

¹²⁸ *Christian Louboutin v Nakul Bajaj* [2018] CS(Comm) 344/2018 [Delhi High Court]

¹²⁹ *L'Oreal v Brandworld* [2018] CS(Comm) 980/2018 [Delhi High Court]; *Luxottica v Mify Solutions* [2018] CS(Comm) 453/2016 [Delhi High Court]; however, it must be noted that the draft E-Commerce Policy proposed by the Government of India introduces a notice-takedown regime for copyright infringement, however the policy is still in the draft stages and the implementation of this provision will determine its efficacy in adapting to retail platforms, Indian Draft e-Commerce Policy (n 74).

¹³⁰ *Facebook Inc v Surinder Malik*, 2019 SCC OnLine Del 9887.

¹³¹ *Acquisition of shares of Ikyu Corporation shares by Yahoo Japan Corporation* [2015] Case 8, JFTC Major Business Combination Cases in Fiscal Year 2015, 72, 74

¹³² Japan Fair Trade Commission, ‘Closing the investigation on the suspected violation of the Antimonopoly Act by Minna no Pet Online Co Ltd’, 23 May 2018 < https://www.jftc.go.jp/en/pressreleases/yearly-2018/May/180523_1_files/180523.pdf > accessed on 3 January 2020. *Amway India Enterprises Pvt. Ltd. and Ors. vs. 1MG Technologies Pvt. Ltd. and Ors.* (08.07.2019 - DELHC) : MANU/DE/2146/2019

¹³³ Case No COMP/M.4523-Travelport/Worldspan, [2007] C(2007) 3938 (European Commission).

¹³⁴ *Ashish Ahuja v Snapdeal* [2014] Case No 17 of 2014 [CCI]

¹³⁵ *Mofo Moko v eBay Canada Ltd* [2013] 2013 QCCS 856 [Canada]

¹³⁶ *Confederation of Real Estate Brokers v Magicbricks* [2016] Case No 23 of 2016 [CCI]; *Jasper Infotech Ltd v Kaff Appliances* [2014] Case No 61 of 2014 [CCI]; *Mohit Manglani v Flipkart* [2014] Case No 80 of 2014 [CCI]

distribution channel to offline markets, and not a separate 'relevant market' altogether. However, this understanding evolved in the *AIOVA v. Flipkart*¹³⁷ judgment, where the CCI recognised that online markets and offline markets do not operate as pure substitutes given the massive difference in user experience, and consequently defined the relevant market as 'services provided by online marketplaces for selling of goods'. In the case of *Ashish Ahuja v. Snapdeal*,¹³⁸ the judicial focus was on the issue of 'deep-discounting' of the goods on marketplace platforms. Instead of reaching a nuanced understanding of the conflict of platform stakeholders in this issue, the final judgment mentioned that deep discounts were permitted because e-commerce 'thrived' on discounting. Such superficial analysis displays an analytic gap fomented because of the lack of a systematic understanding of platforms.

There have also been instances where courts have had the chance to study the impact of digital platforms, particularly in the context of price fixation, collusion, cartelisation and anti-competitive behaviour. Two key decisions represent the judicial understanding of platform behaviour by Indian courts, particularly in the context of transport/cab aggregators like Uber and Ola. These decisions—*Samir Agarwal v. ANI Technologies/Uber*¹³⁹ by the CCI and the 2019 decision of the Supreme Court of India in *Meru v. Uber*¹⁴⁰ are two examples where existing provisions of the Competition Act, 2002 were found to be inadequate in the context of digital platform behaviour. These decisions have been widely criticised as they have been alleged to

not have used the opportunity to freshly examine and holistically re-interpret key competition law provisions in the context of the digital economy.

In *Samir Agarwal v. ANI Technologies/Uber*,¹⁴¹ many issues were brought before the CCI, including Uber's collusion with partner drivers to fix higher fares, and such use of algorithmic pricing to be anti-competitive behaviour under the Competition Act, 2002. The CCI rejected this claim by stating that for collusion to occur, there should be a 'conspiracy to fix prices'¹⁴² in the first instance. Further, it held that the said activity was not tantamount to 'cartelisation' as understood in competition law. This decision has been widely criticised as the CCI analysed Uber's activities in the context of traditional competition law principles, despite having recognised platforms like Ola as 'radio taxi operators and not merely platforms' in other instances.¹⁴³ Further, it has been pointed out that the algorithmic pricing to generate anti-competitive behaviour is well known and the CCI did not analyse this issue in detail.¹⁴⁴

In *Meru v. Uber*¹⁴⁵ on the other hand, it was alleged that platforms like Ola and Uber are engaged in anti-competitive practices such as predatory pricing in calculating fares, entering into exclusive agreements with partner drivers, and incentive structures for partner drivers which disincentivised them from working with other aggregators in the space. While the CCI did not find dominance or anti-competitive behaviour on Uber or Ola's part, the Supreme Court on appeal indicated a case for abuse of

¹³⁷ All India Online Vendors Association v Flipkart [2018] Case No 20 of 2018 [CCI]

¹³⁸ Ashish Ahuja v Snapdeal [2014] Case No 17 of 2014 [CCI] available at <<https://www.cci.gov.in/sites/default/files/172014.pdf>>

¹³⁹ Samir Agrawal v ANI Technologies Pvt. Ltd, Case No. 37 of 2018 (CCI)

¹⁴⁰ Uber India Systems Pvt. Ltd v Competition Commission of India, Civil Appeal No. 641 of 2017

¹⁴¹ Samir Agrawal v ANI Technologies Pvt. Ltd, Case No. 37 of 2018 (CCI)

¹⁴² Intergovernmental Group of Experts on Competition Law and Policy, 'Emerging issues before CCI relating to Digital Economy Contribution by The Republic of India' (2019) <https://unctad.org/meetings/en/Contribution/ciclp18th_cont_India.pdf> accessed on 3 January 2020.

¹⁴³ Fast Track Call Cabs v. ANI Technologies, [2015] Case No. 6 & 74 of 2015 [CCI]; See also Samir Agarwal v ANI Technologies/Uber, [2018] Case No. 37 of 2018 [CCI], para 22.

¹⁴⁴ Basu Chandola, 'Algorithms and Collusion: Has the CCI got it wrong?', Kluwer Competition Law Blog, February 28 2019, <http://competitionlawblog.kluwercompetitionlaw.com/2019/02/28/algorithms-and-collusion-has-the-cci-got-it-wrong/> Ariel Ezrachi and Maurice E. Stucke, 'Artificial Intelligence & Collusion: When Computers Inhibit Competition' 2017 U. Ill. L. Rev. 1775 (2017)

¹⁴⁵ Meru Travel Solutions Pvt. Ltd. v ANI Technologies/Uber, [2017] Case No. 25-28 of 2017 [CCI].

dominance has directed an investigation into the said practices of aggregators.

Observation

The legislative and judicial analyses of digital platforms discussed in this part suggest a disjointed understanding of platforms. Legislative measures, especially sector-specific laws recognise operational aspects of platforms and their relationship with consumers and third-party vendors. At the same time, they also assume platform control (as seen in the case of the FSSAI orders and amendments to the motor vehicle laws). Further, emerging horizontal regulations are at the other end of the spectrum in that they tend to adopt a one-size-fits all approach for all platforms. In the context of such platforms, these static classifications have proved to be woefully inadequate at representing the world of platforms.

As seen above, the term “intermediary”¹⁴⁶ includes internet service providers, transport service providers, social media websites, e-mail services, file hosting websites, messaging applications and even cyber cafes.¹⁴⁷ Clearly, the same obligations cannot be applied to this incredibly wide range of entities. In order to develop a sophisticated legal framework, a

method of differentiating responsibilities based on the design of the entity in question must be operationalised.

Further, even when Indian legislation has made classifications, these classifications have tended to be very inaccurate. For example, the Foreign Direct Investment Policy (FDI) classifies online marketplaces into inventory and marketplace models.¹⁴⁸ Most modern marketplaces are sophisticated platforms, which sell not just third party goods, but also goods owned by the platform, or owned by its affiliates.¹⁴⁹ The failure to recognise a ‘hybrid’ category in this classification is a glaring example of the reductive nature of legislation in differentiating between platforms.

However, this is an issue that seems inherent to the nature of legislation as a legal instrument. There is a rule of law based concern which requires legislation to be simple, accessible and easy to navigate, preventing the creation of elaborate and complex laws.¹⁵⁰ Further, legislation is static in nature, and often relies on executive determinations to respond to immediate¹⁵¹ factual contexts. Consequently, the differentiation of responsibilities is not done in the law, but through executive determination.

¹⁴⁶ The Information Technology Act, 2000 (India), s 79; Information Technology (Intermediary Guidelines) Rules, 2011 (India).

¹⁴⁷ The Information Technology Act, 2000 (India), s 2(1)(w).

¹⁴⁸ Department of Industrial Policy and Promotion, ‘Review of the policy on Foreign Direct Investment (FDI) in e-commerce (Press Note 2 of 2018 series’ (2018) <https://dipp.gov.in/sites/default/files/pn2_2018.pdf> accessed on 3 January 2020.

¹⁴⁹ Rahul Sachitanand, ‘Amazon, Flipkart battle now moves to in-house brands’, Economic Times, 2 April 2017 <<https://economictimes.indiatimes.com/small-biz/startups/amazon-flipkart-battle-now-moves-to-in-house-brands/articleshow/57966536.cms>> accessed on 3 January 2020.

¹⁵⁰ Tom Bingham, ‘The Rule of Law’ (2011)

¹⁵¹ Cass Sunstein and Oren Bar-Gill, ‘Regulation as delegation’, (2015) 7(1) *Journal of Legal Analysis* 1.



Translating the law to platform design

Need for systematic collection of legal knowledge

The experience of the law, as seen in the previous part, demonstrates the need for systematic collection of legal knowledge about digital platforms. Given that regulatory action related to platforms is relatively nascent, and the number of instances of disputes about platforms which have actually witnessed conclusive litigation is low, this presents an ideal opportunity to systematise knowledge about digital platforms in order to organise the future development of the law related to such platforms. The legal discourse surrounding digital platforms, as was outlined in the section preceding this, appears to be reactionary and ad-hoc in many instances. The presence of political inertia, intensive lobbying efforts and a narrative of permission-less innovation have hindered the development of statutory frameworks to regulate such platforms in most jurisdictions other than the EU.¹⁵² The lack of statutory frameworks means that judges dealing with cases relating to platforms are often functioning with very little guidance on the nature and characteristics of such platforms.

Systematic collection of legal knowledge would go some way in addressing some of the following problems. *Firstly*, there is a severe lack of definitional and conceptual clarity in legal responses. The lack of guidance mentioned in the preceding paragraph is reflected in the fact that judges in some instances employ very diffe-

rent vocabulary for the same underlying concept.¹⁵³ This problem is compounded by the fact that standards to assess such concepts have not been harmonised across jurisdictions. Due to the multiple regulatory frameworks which have been repurposed for application to digital platforms, a situation is created where there is a significant lack of clarity on the responsibilities that might be identified with a platform in the instance of any litigation.¹⁵⁴

Second, because of the lack of a common conceptual basis of understanding platforms, development of the law is stunted, and often is not fast enough to respond to challenges posed by digital platforms. Systematic collection of knowledge would help accelerate the development of the law. This is because the method through which insights about platforms are incorporated into legal frameworks is largely through judicial interpretation of such platform attributes in individual cases. This has two consequences –first, there is significant reliance on a judge to not just identify a platform attribute, but also to appropriately incorporate it within the suitable legal framework; and second, precedent that is developed in a particular context constrains not just future adjudications of that issue, but also may create legal rules which may not be appropriate in all contexts. Examples of these failures of the law in responding to challenges posed by digital platforms are outlined in the subsequent section.

Finally, legal understandings of digital platforms

¹⁵² Adam Thierer, 'Permissionless innovation: The continuing case for comprehensive technological freedom', Mercatus Centre at George Mason University (2016)

¹⁵³ Einat Albin and Jeremias Prassl, 'Fragmenting Work, Fragmented Regulation: The Contract of Employment as a Driver of Social Exclusion' in Mark Freedland (ed) *The Contract of Employment* (OUP, 2016)

¹⁵⁴ Michele Fink, 'Digital co-regulation: Designing a supranational legal framework for the platform economy' [2018] *European Law Rev*, 1

lack the sophistication to be able to differentiate between platforms. Most statutory frameworks about digital platforms use monolithic terms to refer to the entire universe of digital platforms, ignoring crucial differences amongst platforms.¹⁵⁵ At best, in individual cases, judges confine themselves to the facts of a particular case, and at worst, end up legislating for an entire class of digital platforms. The ability to differentiate between different kinds of an entity is crucial to developing sophisticated legal frameworks. For example, the framework for company law across jurisdictions recognises multiple different kinds of companies, such as public, private, charitable purpose companies, and creates differentiated regimes for such entities.¹⁵⁶ Regulatory frameworks for digital platforms must also be able to differentiate between digital platforms, and therefore, appropriately develop and apply rules to different contexts.

Another example demonstrates similar failures of the law to understand digital platforms because of a lack of systematisation, despite well-informed endeavours by the court to identify relevant platform attributes. The secondary liability of an e-commerce marketplace for trademark infringement committed by a listing on its platform has been the subject of judicial review across India, the EU and the UK. In India, the Delhi High Court required the 'intermediary' to meet the standard of 'active participation' in order to be culpable.¹⁵⁷ In the European Court of Justice, an 'online service provider' was required to satisfy the standard of 'active role' for culpability to follow.¹⁵⁸ In the US, the provider of an 'interactive computer service' was required to act in a manner that demonstrates 'wilful blindness' for them to be liable.¹⁵⁹ This example demonstrates

how for the same underlying issue across three jurisdictions, three different terms have been used to describe the entity in question, and three different terms have been used to describe the standard of conduct that they are held to, which incidentally, despite the similar descriptions, is different across all three jurisdictions. Beyond just issues of terminology, this demonstrates the lack of a common conceptual scheme for decision makers to assess the same underlying activity. The precise kinds of conduct covered by the standards of 'active role', 'active participation', and 'wilful blindness' also remain unclear. As seen in the previous section, around 21 factors were identified by the Delhi High Court in *Christian Loboutin* which may contribute to the 'active role' of an 'intermediary'.¹⁶⁰ These factors are crucial to understanding the manner in which digital platforms provide coordination services and situate themselves in the market. However, the systemic or conceptual basis for identifying these factors was not outlined in the judgment. Consequently, an admirable judicial exercise ended up resembling a laundry list of platform attributes, instead of an artful delineation of what amounts to an 'active role'¹⁶¹

An examination of this process of law-making on platforms reveals not just disharmony and a lack of guidance and clarity, but also demonstrates that this process is often stunted due to the lack of a common conceptual framework for understanding digital platforms. For example, because the Indian competition law framework does not explicitly recognise digital platforms in its conceptual scheme, the growth of the law in this regard has been stunted. The CCI initially held that online marketplaces do not represent a separate

¹⁵⁵ Jacques Delors Institut Berlin, 'Online Platforms and how to regulate them: An EU Overview', Policy Paper No 227 (2018) <https://www.bertelsmann-stiftung.de/fileadmin/files/user_upload/EZ_JDI_OnlinePlatforms_Dittrich_2018_ENG.pdf> accessed on 3 January 2020.

¹⁵⁶ For example, the Indian Companies Act framework has grown to high levels of sophistication, recognising public, private companies as well as companies established for social purposes. Proposals to recognise 'social impact companies' within this framework demonstrate the continuing evolution of legal classification in prominent legal frameworks

¹⁵⁷ *Christian Loboutin v Nakul Bajaj* [2018] CS(Comm) 344/2018 [Delhi High Court]

¹⁵⁸ *Case C-324/09 L'Oreal SA v. eBay International AG* [2011] EU:C:2011:474

¹⁵⁹ *Tiffany (NJ) Inc v eBay Inc*, 600 F.3d 93 (2d Cir. N.Y. 1 April, 2010)

¹⁶⁰ *Christian Loboutin v Nakul Bajaj* [2018] CS(Comm) 344/2018 [Delhi High Court]

¹⁶¹ Divij Joshi, 'Delhi High Court Examines Intermediary Liability for Trademark Infringement (Part I)' (SpicyIP, 7 November 2018) <<https://spicyip.com/2018/11/delhi-high-court-examines-intermediary-liability-for-trademark-infringement-part-i.html>> Accessed 2 January 2020

relevant market and are merely an alternate channel of distribution.¹⁶² While this position was overturned in a later judgment and online marketplaces were correctly recognised as a distinct relevant market,¹⁶³ the process through which the law interprets the world of digital platforms is slow and cumbersome due to the lack of explicit conceptual recognition of such platforms and their characteristics.

The reasons outlined above demonstrate the significance of systematising insights about digital platforms from judicial observations. Further, such a practice presents the opportunity to integrate disparate movements of legal reform into a comprehensive repository of judicial knowledge about digital platforms. This systematisation would present significant benefits for regulatory action, and help the law evolve in a considered manner.

Synthesising insights from theory and legal practice

If judicial practice suffers from a problem of too much context-specific decision making and too little theory, academic discourse on digital platform suffers from the opposite problem. Most academic literature about digital platforms exists on a fairly abstract scale, with scant attention being paid to the realities of platform practice. Especially in the disciplines of computational humanities and information sciences, theorisation about digital platforms has tended to evaluate the entire universe of platforms as theoretically imaginable, as opposed to anchoring such theorisation around real-world examples of the practices of digital platforms.¹⁶⁴

For example, economic modelling about the way in which digital platforms organise labour tends to build abstract models based on predictions

and the 'rational' economic motivations of such platforms.¹⁶⁵ Consequently, while these models may be incredibly sophisticated in terms of the variables that they cover, they are not tethered to the factors that, given the constraints of the offline world, might be most crucial to understanding digital platforms, such as contracting conditions and remuneration entitlements of workers on the platform.

We incorporate insights from academic discourse in our method, where these insights become relevant to the systematic content analysis of judicial opinions which is conducted in this report. In Part VI, we track these insights vis-à-vis the contractual terms of 12 consumer-facing platforms, thereby grounding these insights in real world practice. We rely on these insights in our act of extracting judicial observations which relate to the metrics of tracking variance from the idealised theoretical model of a platform. Consequently, this framework synthesises insights from judicial reasoning, academic literature and the contractual terms of platforms, as is explained in the following sections.

Developing an adaptable framework

The observations in the previous chapter clearly outline the failure of traditional legal instruments at regulating the world of digital platforms. The genesis of a large number of those problems appears inherent in the nature of legislation itself.

In order to address these issues, we suggest a method which requires the separation of legislative instruments from platform design. Legal tools which can appropriately examine aspects of platform design can intermediate this relationship, and thereby, allow legislation to apply in a nuanced, responsive manner.¹⁶⁶

¹⁶² Confederation of Real Estate Brokers v Magicbricks [2016] Case No 23 of 2016 [Competition Commission of India ("CCI"); Jasper Infotech Ltd v Kaff Appliances [2014] Case No 61 of 2014 [CCI]; Mohit Manglani v Flipkart [2014] Case No 80 of 2014 [CCI]

¹⁶³ All India Online Vendors Association v Flipkart [2018] Case No 20 of 2018 [CCI]

¹⁶⁴ See Annabelle Gawer, 'Differing Perspectives on Technological Platforms: Toward an Integrative Framework', *Research Policy* 43 (2014) 1239.

¹⁶⁵ Jean-Charles Rochet and Jean Tirole, 'Platform competition in two-sided markets' [2003] 1 *Journal of the European Economic Association*, 990, 995

¹⁶⁶ Aida Acosta, '3 Practical Tools to help Regulators Develop Better Laws and Policies', Policy Paper on Autonomous Vehicles, Berkman Klein Center for Internet and Society, University of Harvard (2018), available at < https://cyber.harvard.edu/sites/default/files/2018-07/2018-07_AVs04_1.pdf > Accessed 12 January, 2020

The development of such tools appears to be the next movement in the evolution of legal instruments. For example, the Berkman Klein Centre at Harvard University, in the context of the regulation of autonomous vehicles, has developed three such tools which can act as an interface between the law and technical design.¹⁶⁷ Instead of accommodating for every possible technical configuration in the law, they suggest that the development of interfaces which can identify the appropriate level of responsibility might be a better way of regulating evolving technologies. Some of the tools developed in the aforementioned project include proposals for an interface which can interpret the code of autonomous vehicles and thereby, identify the appropriate legal rules it is bound by. The creation of interfaces mediating the law and technology appears as an option with significant potential, and requires broad-based consensus building and institutional support to be implemented. However, this report is limited to providing the framework for such interfaces, and the adoption of such interfaces would require further research and experimentation.

To this end, we propose a framework for the development of some tools which can intermediate the relationship between the law and platform design. Two such tools are set out in the succeeding sections of this report. The first, in Part V, is a tool for building regulatory taxonomies of consumer-facing platforms, which can allow classifications based on changing regulatory priorities and can incorporate insights about relevant metrics within the same model. The second, in Part VI, is an interface which can help assess the variance of a consumer-facing platform from the idealised theoretical version of a platform. This tool could be of utility in assessing legal risks and making business and regulatory decisions.

These frameworks are capable of being developed collaboratively, and of incorporating insights along metrics other than the ones used in this report. The methodology for the development of these tools is set out in the next page.

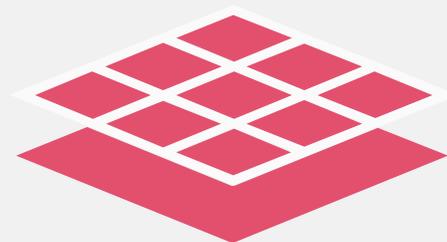
¹⁶⁷ Aida Acosta, '3 Practical Tools to help Regulators Develop Better Laws and Policies', Policy Paper on Autonomous Vehicles, Berkman Klein Center for Internet and Society, University of Harvard (2018), available at < https://cyber.harvard.edu/sites/default/files/2018-07/2018-07_AVs04_1.

Methodology

- As outlined in Part I, the **objective** of this model is to track the variance of a platform from the idealised theoretical version of a platform.
- We identify this idealised theoretical version of a platform as a **'stage' which merely enables interactions between two different groups**.
- Based on our survey of theoretical literature as described in Part II, we identify that platforms deviate from this idealised theoretical version on two metrics: (a) they don't 'merely' enable transactions, but provide part of the goods or services; and (b) they don't just 'enable' interactions, but influence such interactions.
- These two metrics form the basis of our approach, and we identify them as **'Integration'** and **'Influence'** in Part II. Do note that these metrics are merely our assessment of the variance from an idealised theoretical platform, and this methodology could allow for insights to be organised along different metrics or incorporate other metrics within the same model.
- We survey methodologies of taxonomy development applied to digital platforms. We find that Nickerson et al's step-by-step and well-structured methodology of taxonomy development in information systems relies purely on a review of empirical observations, which reduces possibility for researcher bias, and consequently, we adopt the following approach:
 - **Identify meta-characteristics which reflect the taxonomy's purpose and rely on the taxonomy's expected use:** As outlined above, we identify 'integration' and 'influence' as two characteristics explaining variance from the idealised theoretical version of a platform, and as important from a regulatory perspective.
 - **Identify appropriate ending conditions:** We adopt the following two-objective ending conditions: all objects have been reviewed (through systematic content analysis), and every characteristic is unique within its dimensions (through iterative revision of the list of attributes).
 - We choose to adopt an **empirical-to-conceptual approach**, which relies on reviewing a set of empirical instances, and grouping these instances without considering pre-existing conceptualisations: We adopt **systematic content analysis of judicial opinions**, explained in (F), to identify aspects of platform design considered by a court of law to be related to the meta-characteristics in (i). We believe that grouping of these characteristics, from a regulatory perspective, should occur based on regulatory priorities. Since we do not intend to make judgments on regulatory priorities, we provide a ready framework and describe the method of grouping further in Part V.
- In order to review empirical instances of judicial observations about platform design, we rely on systematic content analysis of judicial opinions, based on the methodology set out in Hall (2006).

- **Systematic Content Analysis of Judicial Opinions:**
 - **Case selection:**
 - **Sampling frame:**
 - We choose a universal sample of all cases on 5 legal databases: (Westlaw (UK), Westlaw (US), Supreme Court Cases (India), BAILII (UK) and EUR-Lex (EU))
 - We survey all cases which feature the words 'digital platform(s)' or 'online platform(s)'. This leads to 524 judgments.
 - **Replicable selection techniques:** We exclude cases from this set on three grounds:
 - The phrases 'online platform(s)' or 'digital platform(s)' are used merely to describe one of the parties in the judgment.
 - The reference to the phrases 'online platform(s)' or 'digital platform(s)' is incidental.
 - The judgment does not recognise an aspect of platform design as contributing to either of the meta-characteristics identified in (E). Do note that this involves subjective assessments, and a scaled application of this method may require inter-coding of this exclusion in order to build reliability.
 - **Coding cases:** After the exclusions mentioned above, we arrived at a database of **150** cases . These cases were surveyed for any judicial observation about platform design that related to the two meta-characteristics identified above in (E).
- After collecting an initial list of aspects of platform design ('platform attributes'), we iteratively revise this list to group attributes along the meta-characteristics identified above, i.e., integration and influence.
- Based on this approach, we identify the platform attributes which enable development of taxonomies as set out in Part V. The model provided under Part VI operationalises this method graphically as a tool for broader analysis and assessment.

Towards a taxonomy of platforms



As has been observed earlier in this report, regulation has struggled to recognise the differentiation between platforms. Consequently, the ability to apply differentiated liability regimes is minimal. Based on the methodology outlined in the previous chapter, we identify a set of 54 platform attributes which explain the variance of real-world platforms from the idealised theoretical version of a platform.

The attributes listed under 'Integration' all point to some aspect of platform design which leads to the unification of control, or to the platform being responsible for a degree of the entire service being offered by it. In contractual terms, this is often evident as control over the service provider but is also evident in a number of other design aspects which lead to the platform being responsible for a significant proportion of the underlying good or service. The attributes listed under 'Influence' point towards aspects of platform design which lead to the platform's influence over the transaction, in terms of structuring or nudging the user's choices, ranking and sorting the content on the platform and promoting certain types of interactions.

Developing regulatory taxonomies

Our point of departure from Nickerson et al's approach to taxonomy development is when the researcher must inductively group the observed characteristics into classifications which explain the differences between the objects in question.

In the context of our application of steps, this is at the stage where the platform attributes, observed along integration and influence, would need to be grouped to demonstrate differences between platforms.

From a broad-based regulatory perspective, we suggest that such grouping could be along the axis of importance that is assigned to a particular platform attribute. This would enable the classification of platforms on the degree of variance from an idealised theoretical version of a platform, on the basis of which attributes represent a more significant deviation from this ideal version than others. For example, regulators could consider exercising the ownership of the underlying goods to be a more significant marker of integration than the collection of payments. Consequently, the flexibility to assign regulatory priorities should be left to the regulators. The assignment of priorities to every platform attribute would enable the creation of a matrix such as this

High Integration			
Medium Integration			
Low Integration			
	Low Influence	Medium Influence	High Influence

Constraints of taxonomy development

The following considerations would have to be kept in mind when devising taxonomies using this framework:

- a. Objective ending conditions for grouping would have to be identified before the task of grouping is undertaken. A list of objective ending conditions which are suitable for this method are listed and briefly described in Nickerson *et al.*¹⁶⁸
- b. Strict rules for the sequential treatment of a platform as belonging to a certain category would have to be identified. These rules would have to ensure that appropriate nuance is reflected based on the priorities afforded to an attribute.
- c. It must be remembered that such taxonomies would only be useful when deployed for specific purposes. Consequently, the specific attributes included for the development of a taxonomy must be carefully chosen by a regulator.

¹⁶⁸ Robert Nickerson et al, 'A method for taxonomy development and its application in information systems', *European Journal of Information Systems*, 1 (2012).

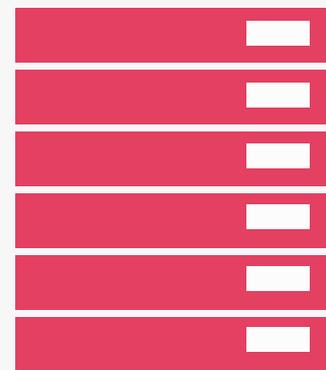
Integration Attributes

1	The platform owns the inventory of some of the goods/services.
2	The platform provides logistical (warehousing, transportation, delivery) services for some or all of the goods
3	Payments are collected by the platform, whether natively or through a gateway
4	The marketing material of the good/service uses the name, or brand, of the platform
5	The platform provides support (purchase assistance, grievance redressal, customer support) services
6	The platform provides for the completion of the transaction, as opposed to just connecting to the service provider
7	The platform charges an upfront fee for listing goods/services on the platform
8	The platform automatically matches customers and vendors/service providers
9	The platform licenses (prescribes specific conditions/issues instruments of approval or verification) the vendors/service providers on its platform
10	The platform's agreement with the vendor/service provider contains an exclusivity provision, or provisions which have the effect of creating exclusive relationships
11	The platform has an employer-employee relationship with the vendors/service providers.
12	The platform enters into a conditional revenue sharing arrangement (sale-contingent revenue clause), or a similar arrangement, as opposed to/in addition to other forms of revenue collection (advertising/flat fees)
13	The platform owns some degree of intellectual property rights in the goods/services on the platform (IP both in terms of content of the listing (images etc) or in the product itself (Oyo branding of hotels)
14	The platform mandates a membership or subscription fee from users to access the platform
15	There is vertical integration between the platform and vendor/service provider through ownership, for example, seller companies on the platform are owned or controlled by the platform
16	Customers/service providers are prohibited to deviate from the terms of a transaction based on their consensus in the course of a transaction facilitated by the platform and where the terms of this transaction have been specified by the platform
17	The platform indemnifies any party for any loss suffered by them (not for faults of the platform)
18	The platform makes decisions on refunds, returns or exchanges (remedies for transactional disputes)
19	The platform assumes the risk of loss in the transaction
20	The service provided by the platform is integrated with a physical asset (such as a car in the case of transport apps, or a house in the case of rental apps)
21	Advertising or marketing material references the integrated bundle of goods/services, as opposed to referring the platform only
22	A human resource is integral to the delivery of the service (excl. customer support/owner of the property)
23	The platform provides tracking facilities for the good/service

Influence Attributes

1	The platform collects and provides information about the vendor/service provider to the other users or vendors on the platform
2	The platform requires registration of customers to avail the services
3	The platform provides personalised recommendations as a 'Recommended for you' box on its interface, or other similar means (as differentiated from mere algorithmic sorting personalisation)
4	The platform conducts monitoring, or moderation of the listings/content on the platform (through algorithmic or human mediated processes)
5	The platform has the power to, and a mechanism for, the removal/takedown of listings/content on the platform (break down between product listings and review/other content)
6	The platform has a dedicated intellectual property policy
7	The platform specifies restrictions on the kinds of content/listings that are permitted on the platform
8	The platform has the ability/right/contractual power to terminate access to the platform, or terminate the account of a customer/vendor/service provider
9	The platform exercises influence over the presentation or placement of listings/content, or sorts them based on 'relevance'/'popularity'/'best selling' (listings are sorted in an order that is not 'objective', such as chronological, number of views, number of sales etc)
10	The promotional, advertising or marketing material of the platform incentivises certain kinds of transactions/behaviour on the platform
11	The platform screens/verifies the vendors/service providers/customers on its platform
12	The platform determines the timing of an interaction/transaction, or selects the receiver of an interaction (such as by providing notifications recommending a purchase)
13	The platform deploys/utilises a rating/ranking mechanism
14	There is the preferential treatment of certain brands, or certain classes of vendors on the platform
15	The platform exercises supervision over the performance of the service
16	The platform prescribes the manner of performance of the service
17	The platform makes editorial/substantive contributions to the listings/content on the platform
18	The platform provides guarantees, or warranties, or any other representation in respect of the listings/content of the good/service on the platform
19	The platform retains a right of inspection over the service provider
20	The platform creates classifications/categories of services (for example, premium services on a platform)
21	The platform provides reviews of the listings/content on the platform
22	There is a mechanism of reporting prohibited listings/content to the platform
23	The platform determines the price of the good/service
24	The platform imposes a limit on the number of transactions on the platform
25	The platform prescribes the conditions of access, or entry requirements, or eligibility criteria, or other provision in the nature of an entry threshold for service providers on a platform
26	The contractual terms of the platform with the vendor/service provider require the vendor/service providers compliance with the law
27	The platform determines the incentive structure for the vendors/service providers
28	The platform provides a guarantee of minimum business to the vendor/service provider
29	The platform places an obligation on the vendor/service provider to be available, or to not cancel or refuse an order
30	The platform provides discounts itself, or influences sellers to provide discounts in respect of the good/service
31	The platform imposes a penalty for declining service, or for cancelling the good/service

Building a legal interface for consumer platforms



Mapping variance from an idealised theoretical version of a digital platform

In this section of the report, we operationalise the method outlined in the earlier sections by building a model which maps the variance of a digital platform from the idealised theoretical version of a platform on the basis of the platform attributes listed in Part V. We establish a graphical scheme, measuring the number of influence attributes satisfied by a platform on the X axis, and measuring the number of integration attributes satisfied by a platform on the Y axis. In this scheme, the distance of a particular platform from the (0,0) position (which represents the idealised theoretical version of a platform) denotes the variance of a platform from this ideal.

As mentioned above, we identified 12 consumer-facing transaction-oriented platforms to illustrate this model. Do note that we are not drawing inferences or forwarding recommendations based on the placement of a particular platform within this model. The choice of platforms is, therefore, merely illustrative and meant to provide a prospective view of how this interface might appear when it is adopted. Further, given the prominence of the platforms selected to be mapped, it would enable a preliminary assessment of whether such interface is accurate at representing differences between platforms.

Do note that the placement of a particular platform is also not a value judgment on the

propriety of the platform, but merely an evaluation of how sophisticated its design and governance infrastructure is. The purpose of tracking variance from the idealised theoretical version of a platform is not to normatively endorse the idealised version, but to accurately be able to build a ground-up understanding of digital platforms using this model.

In order to evaluate whether a particular platform satisfies an attribute identified in Part V or not, we used the following standard process:

- A survey of the contractual terms of the platform, including its privacy policy, terms and conditions with consumers and terms and conditions with sellers/service providers (where applicable) in order to determine whether a reliable inference about a platform attribute can be made.
- Where it was not possible to determine if an attribute was satisfied based on a survey of contractual terms of the platforms as in (1) above, then we based our analysis on whether such attribute could be reliably observed on the interface of such platform.
 - Some attributes are reliably observed on the interface of a platform, for example, whether a platform sorts the listings on the platform in a non-chronological manner is evident from surveying its interface.

- However, some attributes are not reliably observed on the interface of a platform. For such attributes, we noted that it was not satisfied by the platform in question.
- If a particular attribute cannot be identified after a survey of contractual terms in (1) and a survey of the platform interface in (2), then it was noted that such attribute was not satisfied by the platform in question.

By limiting our inquiry to this process, we ensured that these estimations were based on as objective an assessment as possible. Every attribute is recorded as satisfied only if there is either a contractual term related to such attribute, or if such attribute was reliably observed on the interface of the platform. Consequently, we have tried, as far as possible, to not let subjective interpretations dictate where a platform lies on this model.

However, despite our best efforts to avoid any level of subjectivity or inaccuracy, we note that inaccuracies may have crept in inadvertently. This could be due to misinterpretation of the contractual terms of the platform, or due to an unwarranted inference drawn about an attribute. While we have attempted to minimise such inaccuracies, in any scaled adoption of this interface, collaboration with the platform itself would help rid of these inaccuracies and involve direct input from such platforms in order to improve interpretation of attributes.

Application and development

The development of an interface such as this allows the law to adapt to the specifics of platform design. The attributes which populate this interface have been drawn from the systematic content analysis of judicial opinions from a taxonomic perspective. This interface would enable precise insights about the nature of digital platforms from a regulatory perspective.

Further development of this interface could enable, for example, the identification of relevant legal rules with attributes included within the model. This would enable the interface to accurately pin-point duty holders in the case of digital platforms, by applying the legal rules to the specific factual context and not having to work off static classifications. The future development of this interface relies on an aggregation of more insights about digital platforms, as well as broader consensus on the classification and organisation of such insights.

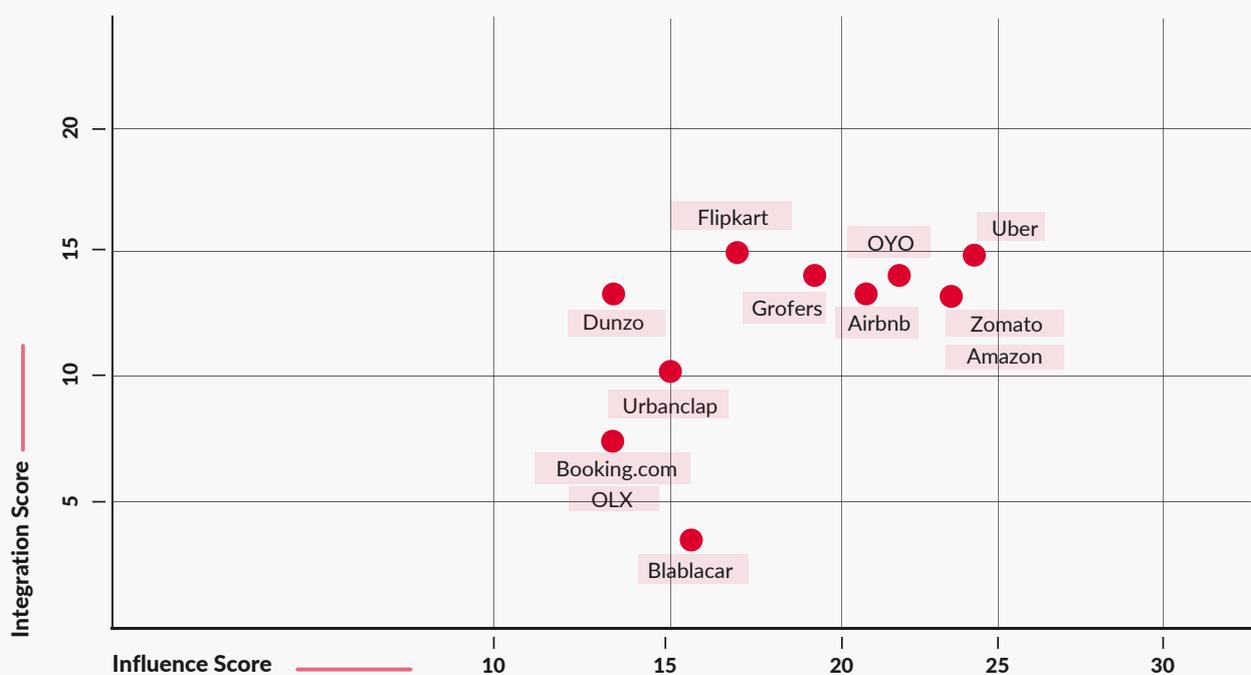
The primary metrics along which these insights are currently organised (i.e. integration and influence), could be replaced with other metrics that are considered relevant in a particular regulatory context.

However, the model itself would be adaptable across regulatory contexts, and with collaborative aggregation and consensus-generation, would enable truly effective regulation of digital platforms by providing the law with a tool to accurately modify its application to specific complex factual situations. It would also enable a birds-eye view of the universe of digital platforms, which can be valuable from not just a risk assessment perspective, but also from a regulatory and planning perspective.

The graph below is an illustrative representation of this model based on a survey of 12 consumer-facing platforms:

- As observed below— platforms like **Uber**, **Amazon** and **Zomato** occupy a high score on the Integration and Influence matrices, i.e., they appear to be influencing users and platform actors to a higher degree.
- On the other hand, platforms like **UrbanClap** and **Booking.com** occupy a lower position on both the Influence as well as Integration matrices, which indicates that they appear to be influencing users and platform actors to a lower degree. **Blablacar** occupies the lowest position on the matrix (also indicating minimal integration).

- While the scores of these platforms may not be truly reflective of their actual legal or economic status, **they indicate significant shifts/deviations made from the 'pure' platform model discussed in the beginning of the report— i.e., all platforms being neutral 'stages' where third party activity/interaction can take place.**
- These findings also raise important questions of difficult to interpret legal definitions of 'intermediaries', 'market' and 'inventory based e-commerce platforms' and sector specific regulations which the Government of India has devised. If platforms like Amazon and Zomato have a high Integration-Influence score, they will necessarily exercise more control over platform interactions, and therefore exhibit 'active' behaviour. Platforms like Blablacar which have scored extremely low would indicate 'passive' behaviour. This foundational exercise, if developed further will be a critical tool in envisioning legal definitions, and regulatory treatment of platforms insofar as questions of liability are concerned.
- Each platform on the Integration-Influence Score occupies a unique spot on the graph. This indicates varying operational and structural characteristics of digital platforms (refer to Integration and Influence table). Consequently, each sub-category of platform would require tailored legal vocabulary to regulate its behaviour and outline its legal obligation (as opposed to being mere intermediaries as defined under the IT Act).
- Admittedly, the Integration-Influence Score cannot provide a complete taxonomy of digital platforms for the purpose of legal/judicial understanding. However, based on key attributes as identified in this report (and subsequent analysis of the identified platforms based on the objective criteria as set out in the previous part), there appear to be features which can be pieced together to arrive at a more robust definitional understanding of digital platforms, particularly in the context of consumer-facing digital platforms.



Conclusion

- Legal and regulatory tools provide various perspectives on emerging platform taxonomies. However, courts and lawmakers have been unable to truly capture structural and functional characteristics of digital platforms, particularly consumer-facing platforms.
- There is a need for legal vocabulary to catch up with evolving platform models, particularly their control and influence over platform users and other participants.
- Consequently, regulatory action must be able to transcend the conceptual confusion caused by multiple academic disciplines attempting to explain digital platforms. In order to do this, it is essential to build a ground-up understanding of digital platforms.
- The systematic collection of legal knowledge is essential to integrate disparate regulatory movements. The fragmented nature of legal regulation leads to the lack of a common conceptual framework, the stunted development of the law and an inability to differentiate between different kinds of platforms. The relatively nascent nature of the law in the context of digital platforms makes this a prime opportunity to systematically build a repository of legal knowledge and integrate these disparate movements.
- The framework developed in this report helps separate monolithic legal rules from platform design. By tracing the variance of any platform from the ideal 'theoretical' version of a platform, the specific ways in which it integrates the underlying product or influences the transaction can be mapped. This can allow the tailored, nuanced imposition of concomitant responsibility on the platform.
- Some of the problems related to the regulation of digital platforms are inherent to the nature of legislation as a legal instrument. We suggest two tools which help overcome this problem: a framework to devise regulatory taxonomies of platforms, and an interface to track the variance of a platform from an idealised theoretical version of a platform. These tools can enable the precise identification of duty-holders in complex platform architectures, as well as enable the differentiated application of legal rules.
- Future agendas of research include the development of these tools at scale, the construction of such tools in an implementable form for narrow regulatory contexts, and the enabling of collaboration and aggregation on insights and perspectives related to the role of digital platforms.

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