

Data Protection and Trade: The Dubiety between Regulation and Liberalization

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Introduction

'Data is the new oil' this popular phrase was originally quoted by Clive Humby a British data science entrepreneur, and the phrase has since then been repeated several times¹ probably because the expression does hold merit. Similar to oil, raw data may not be as valuable but once refined, processed, analyzed and recorded comprehensively it can form a basis for adapting to market shifts and proactively making appropriate decisions². Data in the 21st century provides tremendous opportunities in form of critical information that can be a valuable resource for government to local businesses³. According to a Deloitte report, by 2030 data collection and data analysis will become the basis of every service and business model.⁴ However unlike oil, data is not limited, it can be shared, reused and if managed effectively it will continue growing with

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¹ Amol Mavuduru, *Is Data Really the New Oil in the 21st Century?* TOWARDS DATA SCIENCE, Mar. 23, 2021, 1:30 PM, <https://towardsdatascience.com/is-data-really-the-new-oil-in-the-21st-century-17d014811b88>

² Matt Rosebrough, *Is Data Really "The New Oil"?* KENWAY COUNSULTING, Mar 23, 1:30 PM, <https://www.kenwayconsulting.com/blog/data-is-the-new-oil/>

³ Joris Toonders, *'Data Is the New Oil of the Digital Economy'*, WIRED, Mar. 23, 2021, 1:30 PM <https://www.wired.com/insights/2014/07/data-new-oil-digital-economy/>

⁴ Robert T. O'Brien, *Data is the new gold*, DELOITTE, Mar 23, 2021, 1:30 PM <https://www2.deloitte.com/global/en/pages/real-estate/articles/future-real-estate-data-new-gold.html>

each piece of new information⁵. Data in many ways can be more valuable than oil.

In January 2021, the estimated global digital population was 4.66 billion active internet users⁶ and each user leaves behind a trail of information after every online transaction. This information is in the form of raw data. This entire stock of structured, semi structured and unstructured data is referred to as the 'Big Data'. The International Data Corporation (IDC) defined Big Data as “a new generation of technologies and architectures, designed to economically extract value from very large volumes of a wide variety of data, by enabling high-velocity capture, discovery, and/or analysis”⁷. For Big Data to be converted into valuable, actionable insights they have to be captured in a timely manner and analyzed accordingly⁸. The process of analyzing this data and discovering knowledge and patterns from the Big Data is called 'Data Mining'⁹.

Regulation of Data

Big Data and Data Mining have been gaining attention over the years. A processed data is a treasure that the organizations hold, it can be put to use in various ways. It can assist businesses in understanding their customers, market trends and in designing their future strategies

⁵ Arvind Singh, *Is Big Data The New Black Gold?*, WIRED, Mar. 23, 2021, 1:30 PM <https://www.wired.com/insights/2013/02/is-big-data-the-new-black-gold/>

⁶ Bridget Botelho, '*Big data*', TECHTARGET, Mar 26, 2021, 6:05 PM <https://searchdatamanagement.techtarget.com/definition/big-data>

⁷ Abid Mehmood et. al., *Protection of Big Data Privacy*, Vol. 4, IEEE ACCESS, 1821 (2016), Mar 29, 2021, 8:00 PM <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7460114>

⁸ *Id.*

⁹ LEI XU et al., '*Information Security in Big Data: Privacy and Data Mining*', Vol 2, IEEE ACCESS, 1149 (2014), Mar 29, 2021 8PM, <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6919256>

accordingly¹⁰. It can further help businesses understand their competitors, plan their promotion and marketing strategies, build their goodwill and decide their pricing and sales techniques. the big data is used by the individual or business to collect, store, mine, and process data in order to manufacture new digital products and services. For instance, Uber Technologies Inc. is an American Company that is engaged in the service of ride-hailing, food delivery, package delivery, etc. However, this company, in the course of providing its services, generates a huge amount of data relating to its customers and employees, such as their location, their travel pattern, and also the traffic situation in a particular area. This data, which belongs to Uber Technologies Inc., may be required by other companies in order to produce or market other digital products and services to the respective people whose data is owned by Uber Technologies. In the year 2017, Uber released data of more than 2 billion rides in order to launch Uber Movement, an initiative to help manage urban traffic which can be used by urban planners to plan the cities according to its traffic systems.¹¹ In this way, Uber has created a new digital service, urban traffic management, along with its conventional service of ride-hiring, food delivery, parcel delivery, etc., whereby it can profit by using or selling its data. In this context, the countries that host the majority of these Big Tech companies want the free flow of data across the globe so that these companies can earn huge profits by collecting, mining, and processing the data. This inclination of the countries was supported by the fact that big data, being a disruptive technology, did not fit into any of the existing legal systems and was largely unregulated.

As the saying goes, with great benefits come greater challenges and one of the biggest challenges with big data is data protection, especially in cases of cross border flow of data. The information that is generated is personal information of an individual user like name, address, bank and financial details etc., therefore the users are interested

¹⁰ Abdugofur Temirov, *Data Mining Techniques in E-Commerce*, Vol 8, International Journal of Science and Research, 117 (2019), Mar. 30, 2021, 9:30 PM <https://www.ijsr.net/archive/v8i9/ART2020929.pdf>,

¹¹ Uber Movement, Mar. 30, 2021, 9:30 PM, <https://movement.uber.com/?lang=hi-IN>.

in protecting their informational privacy and wish to have some level of control on how it is being used and circulated. On the other hand, the information is of extreme importance for the government for protecting their citizens' information from foreign surveillance, for preventing crimes and, to some extent, for economic gains. Also, the abundance in which this data is generated has made it exceedingly affordable and convenient for cybercriminals to get access to personal information of users and plan targeted attacks.

This conflict of interest between different stakeholders has stirred up the debate as to whether the cross-border flow of data should be controlled/regulated or whether it should be completely liberal. With the challenges of data protection coming to fore, governments, individuals and organizations started desiring more control over big data. Many countries have adopted various strategies to ensure that the personal data of their citizens is protected at all costs. One of the strategies intended to be adopted by the countries to regulate the cross-border flow of data is by resorting to rules which will mandate *Data Localization*.

Data Localization vs. Data Globalization

Data Localization is a practice of storing data within the physical boundaries of the country in which it was generated. For instance, if an organization generates data in India, then that data shall be stored and processed within Indian territories. Data by its very nature is capable of being transmitted across globe within seconds but due to its immense economic value governments are becoming increasingly interested in regulating the flow of data. Some pertinent arguments in favor of data localization are that data shall be treated as a national resource and similar to trade inflow and outflow of goods; data should also be treated as a taxable resource. Proper processing of data can help local business grow substantially and can provide them with an edge over its competitors. Lastly, the easy accessibility of data raises multiple concerns regarding foreign surveillance.

Contrary to the concept of data localization is the concept of 'Data Globalization'. Data globalization favors the free flow of data

worldwide without any restriction or control from specific countries or companies. Over the past decade, trade has grown substantially but its no longer restricted to tangible goods rather trade in data has contributed immensely to international trade. The digital flow of data benefits organizations big or small; it exposes them to new opportunities and a global market. Campaigners of free flow of data fear that restricting trade by localization can minimize innovation and hinder economic growth. Excessive regulations will increase the financial burden on companies and may discourage them to expand their business to expand to certain countries¹². Also, data localization alone is not sufficient to protect the data of a nation's citizens from foreign surveillance. Lastly, restricting the flow of data goes against the very concept of the internet.

However, each country has its own regulatory model and these regulatory approaches differ from country to country depending on their economic realities¹³.

Comparison of Regulation of Data in various Countries

The U.S. follows the most liberal form of data protection system wherein the Federal Trade Commission is the *de facto* data protection authority. The entire system works on self-regulation by the Big Tech companies.¹⁴ This essentially intensifies the distrust amongst the nations as to the lack of a concrete and centralized system to deal with any breach of privacy and security. The European Union, on the other hand,

¹² James Manyika, ET AL., *Digital Globalization: The New Era Of Global Flows*, McKinsey & Company, McKinsey Global Institute (2016) <https://www.mckinsey.com/~media/McKinsey/Business%20Functions/McKinsey%20Digital/Our%20Insights/Digital%20globalization%20The%20new%20era%20of%20global%20flows/MGI-Digital-globalization-Full-report.ashx>

¹³ Erik Van Der Marel, 'Regulating the Globalisation of Data: Which Model Works Best?', WILSON CENTRE, (2021) <https://www.wilsoncenter.org/article/regulating-globalisation-data-which-model-works-best>

¹⁴Gautami Govindrajan & Ayushi Singh, 'Curb Your Enthusiasm:The WTO E-Commerce Negotiations and the Developing World', 13 Trade Law & Development 1-37 (2021), 24th Mar, 2021, 4:30 PM

has a balanced approach towards data protection and privacy which comes under the ambit of the General Data Protection Regulation (GDPR). The GDPR establishes substantive and procedural rules which are to be followed and are enforceable.¹⁵ China, on the other hand, lies on the extreme opposite end of the spectrum to that of the U.S. It has stringent data protection, privacy, and security-related protocols whereby it insists on local production, storage, and processing of data.¹⁶ In Russia, local storage of citizens' data is mandated, and that of the companies has to be mirrored in a local server.¹⁷

To harness the power of data flow and to benefit from the huge data that is generated within the country, India is becoming increasingly interested in having policies aiming towards data localizations. The four prime reasons for India favoring data localization are: securing personal data for law enforcement (for e.g. tracking the source of a fake news or to keep a track on potential deviants and prevent a crime from happening); for national security and preventing foreign surveillance; securing data privacy of Indian citizens by effectively enforcing data protection laws and finally for increasing economic growth¹⁸. India has enacted a few regulations for localization like the Reserve Bank of India Guidelines for storing all payment data within the country¹⁹. However, India is still

¹⁵ Commission Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, 2016 O.J. (L 119).

¹⁶ Henry S. Gao, Across the Great Wall: E-Commerce Joint Statement Initiative Negotiation and China, SSRN, 30 Mar, 2021, 7 PM https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3695382 [hereinafter Gao].

¹⁷ Govindrajan and Singh, *supra* note 16.

¹⁸ Anirudh Burman, *How Would Data Localization Benefit India?*, CARNEGIE INDIA (2021), 25 Mar, 2021, 7:30 PM <https://carnegieindia.org/2021/04/14/how-would-data-localization-benefit-india-pub-84291>

¹⁹ Ashima Obhan Et. al., 'Data Protection Or Data Localisation', Mondaq, 27 Mar 2021, 6 PM <https://www.mondaq.com/india/data-protection/885276/data-protection-or-data-localisation>

deliberating on whether to have a closed or open data economy and appropriate policies are still under consideration.

What's processing at the WTO?

In 2020, the pandemic brought considerable changes in the traditional model of the global economy. The global trade stood disrupted and had a major impact on the global economy but as we shifted to 'stay at home' services and online services massive amount of data was being generated and this data ended up becoming a key factor in economic growth²⁰. It is estimated that by 2025 free flow of data will contribute up to 11 trillion US Dollars to the global economy²¹. The significance of having control over data is recognized internationally. Further, in the year 1992, the traffic of data being generated and transferred across borders was 100 GB per day.²² In 2020, this data traffic increased to 100,000 GB per second.²³ It is estimated that by 2022, the data traffic will increase to 150,000 GB per second, and almost 90% of the population over the age of 6 years will be online in some or another form.²⁴

In such circumstances, it is evident that very soon, a humongous amount of data is going to be generated, and its processing will make its owners (Big Tech) extremely wealthy. Hence, every country in the world is aiming to build appropriate strategies and policies to harness the

²⁰ Arpita Mukhrjee et al., '*COVID-19, Data Localisation and G20: Challenges, Opportunities and Strategies, for India*', ICRIER, (2020), 24 Mar, 2021 8:30 PM https://think-asia.org/bitstream/handle/11540/12582/Working_Paper_398.pdf?sequence=1

²¹ *Id.*

²² Crossing Borders, THE WORLD BANK, 26 Mar, 2021 9:30 PM <https://wdr2021.worldbank.org/stories/crossing-borders/>.

²³ Crossing Borders, THE WORLD BANK, 26 Mar, 2021 9:30 PM <https://wdr2021.worldbank.org/stories/crossing-borders/>.

²⁴ Steve Morgan, Humans On The Internet Will Triple From 2015 To 2022 And Hit 6 Billion, CYBERCRIME MAGAZINE (July 18, 2019), <https://cybersecurityventures.com/how-many-internet-users-will-the-world-have-in-2022-and-in-2030/>.

economic benefits of big data²⁵. In conventional trade terminology, the countries which house the Big Tech Companies become exporters of processed, analyzed data, and countries like India become importers of data despite being one of the largest generators of raw data²⁶. The matter of alarm lies in the fact that, unlike in the Uber Inc. example²⁷ provided earlier where anonymous trips information was released to manage traffic, in many circumstances, personal sensitive and critical data is being collected, stored, and processed by self-learning machines of the Big Tech. In spite of multiple firewalls promised by Big Tech in order to ensure complete privacy relating to this information, the slightest error might lead to a huge threat to the privacy and security of the country as well as its people.

The exponential growth in the use of E-commerce for buying and selling commodities and services has led to a serious discussion at the WTO level, initially limited to a discourse, and later, extending to negotiation upon the rules relating to E-commerce governance at a global level. However, the active involvement of WTO members in negotiating international rules relating to E-Commerce has raised various concerns. One of the major issues is that, *prima facie*, the plurilateral E-commerce negotiations are from the perspective of developed countries alone. The developed countries, which house most of the Big Tech, insist on liberalizing the flow of data by imposing certain obligations to prevent governments from developing domestic policies of data localization and source code sharing data sharing, etc. On the other hand, developing and Least Developed Countries (LDCs) which, firstly do not host these Big Tech companies and, secondly have the maximum customer base for the foreign Big Tech companies want a chance of developing a domestic policy by which the cross-border flow of data of its citizens can be

²⁵ *Id*

²⁶ Rishab Bailey, Data Localisation in India: Questioning the Means and Ends, *NIPFP Working Paper No. 242, 2018, SSRN, (2018)*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3356617

²⁷ *Supra* note 13

regulated in order to ensure maintenance of privacy and security of its own subjects.

The Big Tech companies, which stand to earn profit from the processing of their customer's data, intend to adopt rules which will ensure free flow of data across geopolitical borders and provide a narrow scope for government control subject to legitimate exceptions.²⁸ It is argued that the issue of privacy and security, which is raised as an alarm by various countries, will inadvertently fall within legitimate policy exceptions, and this will allow the government independence to develop domestic policies to achieve legitimate interests. However, it must be noted that both privacy and security from the point of view of cross-border data flows is something with respect to which no rules or principles exist at the international level unlike in the case of the TRIPS agreement, wherein the multilateral rules were concluded on the basis of already existing international IPR obligations. Adopting rules relating to privacy and security in light of cross-border data flow under the international trade regime, in the absence of any pre-existing international consensus regarding the same, will prove to be difficult and non-agreeable to most countries. In this aspect, the situation is complicated further by the diverse nature of data protection laws in the major countries of the world like the U.S., E.U., China, India and Russia. Further difficulties arise in the case of the LDCs, wherein, 21 out of 47 countries have privacy legislations.²⁹

In light of the contrasting approaches towards data protection adopted by different countries, it seems almost impossible to agree to standard rules regarding cross-border data flows in the WTO E-commerce negotiations. However, considering the growing importance of

²⁸ World Trade Organization, Electronic Commerce Negotiations. Consolidated Negotiating Text, INF/ECOM/62/Rev.1, at 36 (Dec. 14, 2020)., 27 Mar, 2021 11 PM https://www.bilaterals.org/IMG/pdf/wto_plurilateral_ecommerce_draft_consolidated_text.pdf

²⁹ Summary of Adoption of E-Commerce Legislation Worldwide, UNITED NATIONS CONF. ON TRADE & DEV., 27 Mar, 2021 11 PM <https://unctad.org/topic/ecommerce-and-digital-economy/ecommerce-law-reform/summary-adoption-e-commerce-legislation-worldwide> [hereinafter Summary of Adoption of E-Commerce Legislation].

data itself, it is essential to arrive at some kind of a consensus as to what broad approach should be followed; whether it should be conditional regulation as are provided in the EU GDPR or whether it should be unconditional restrictions as the one implemented in China. Alternatively, considering the damning nature of data itself, it is necessary to understand whether a liberal self-regulating system of data protection, as it exists in the U.S., can be established all over the world.

These issue were recognized by the members of the WTO during the proceedings which involved a digital trade discourse at the WTO level. In fact, many efforts were undertaken under the aegis of the WTO negotiation rounds and Ministerial conferences to look into the aspects of equitable Access to Information and Communications Technology (ICT) products, development of digital infrastructure, helping out businesses to understand the importance and benefits of e-commerce. For instance, in 1996, the Information Technology Agreement was adopted by the WTO members to reduce and eliminate the traffics on ICT products such as computers, telecommunication devices, etc³⁰. However, towards the end of the tenth ministerial conference, the countries, seeming to have lost their patience, started aggressively approaching the issue of the development of E-commerce rules as a part of WTO.

Plurilateral Efforts for Regulation of Cross-Border Flow of Data

During the period leading to the twelfth ministerial conference, around eight proposals for potential E-commerce discourse were submitted by different countries.³¹ These proposals differed from the reports of the WTO bodies as well as the dedicated discussion as it

³⁰ World Trade Organization, Ministerial Declaration on Trade in Information Technology Products, WTO Doc No. WT/MIN (96)/16 (Dec. 13, 1996) https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=15259,1447,59473,31385,38875,31396,20233,3979,15215,38784&CurrentCatalogueIdIndex=8&FullTextHash

³¹ Work Programme on Electronic Commerce, *Report by the Chairman*, General Council, WT/GC/W/739, (1st Dec., 2017), 27 Mar, 2021 11 PM <https://webcache.googleusercontent.com/search?q=cache:f-UWpbmkO6kJ:https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx%3Ffilename%3Dq:WT/GC/W739.pdf+&cd=1&hl=en&ct=clnk&gl=in>

debated about the more fundamental issue of the manner in which the issue of E-commerce should be dealt with at the WTO. Due to the deadlock which occurred at the WTO, when the reinvigorated discourse began with regards to E-commerce, the countries demanded a reform in the manner of discussing the issues of E-commerce. Seventy-one WTO members issued a joint statement informing their decision to begin exploratory work into the feasibility of negotiations relating to international e-commerce rules.³² This was a result of the eagerness of many developed countries to begin and conclude negotiations that impose binding rules on countries to ensure liberalized e-commerce. However, many third-world countries like India, Indonesia and South Africa were hesitant to join this initiative as it seemed rushed and premature. Thus, began the plurilateral efforts towards the development of international e-commerce rules relating to trade.

Plurilateral Trade Agreements and Data Protection

One of the major points of contention in the Joint Statement Initiative (JSI) on E-commerce at the WTO level remains the data protection aspects of e-commerce. The difference in the rules adopted by various countries is further reflected in the difference of negotiating points of countries at the JSI negotiations. The familiarity of the problem remains a common factor among the countries; however their differing positions with regards to the domestic regulation of data protection remains the sole impediment in developing global data protection rules. For instance, the European Union remains wary of the ever-expanding Big Tech corporations whereas the US is more cautious of an intrusive corporate regime. However, the majority of the countries remain in the middle of the spectrum wherein some are leaning more towards a stronger regulation of data whereas the others are more in favour of a liberalized system of cross border flow of data.

³² World Trade Organisation, *Joint Statement on Electronic Commerce*, WT/MIN(17)/60 (13th Dec., 2017), 27 Mar, 2021 11 PM https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueId_List=250607,240871&CurrentCatalogueIdIndex=1&FullTextHash=371857150&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True

In spite of the difference of attitude of the countries, certain efforts have been made at the plurilateral level between various countries to find a way to co-exist within their respective data protection regime. In order to understand this further, reliance is placed on the regional trade agreements entered into by the EU and the US. The General Data Protection Regulation (GDPR) is the instrument which governs the privacy standards of the members of EU. The preamble of the GDPR states the adequacy decision wherein, only when any third country offers an adequate level of data protection, thereby ensuring uniformity and certainty, the free transfer of data to such a country will take place without any restrictions. In case of the adequacy decision, equivalence is sought with the protection which is otherwise mentioned offered within the Union. The Personal Information Protection and Electronic Documents Act (PIPEDA) which is the federal privacy protection law of Canada has been recognized as providing adequate level of data protection by the EU. When it comes to the US, the laws are very fragmented and uncertain. The Federal Trade Commission in the US is empowered to prohibit unfair and deceptive practices in which illegitimate data transfer might be involved. These are the broad outlines which the abovementioned countries follow in order to enter into bilateral and plurilateral trade agreements. For instance, in the Trans-Pacific Partnership agreement (TPP), it is mandatory for the parties to adopt a legal framework for protection of data and, to achieve this objective, the parties may follow the European way and establish a comprehensive privacy and data protection policy.³³ Alternatively, the parties of the TPP may also adopt follow the patchwork approach of the US or the privacy shield which may materialize into voluntary agreements on behalf of the companies.³⁴ TPP being an agreement negotiated between 12 states quite extensively offered the policy space for the countries to develop any kind of data protection regime. As a result of this, developing and other countries which do not have well developed data protection rule can compare different systems of data

³³ TPP footnote 6.

³⁴ TPP footnote 6.

protection and design the most appropriate one for their own country. However, there are certain instances with regards to which the countries are reluctant to bargain with. For instance, in the TPP agreement, any regulation relating to data protection should not include data localization. Thus, we see that although efforts are being made to harmonize and centralize the system, there are still certain provisions which strip the governments off their political power.

Conclusion

The intersection at which data protection and liberalization of trade meet is concerning many scholars around the world. The issue of data protection more or less requires active intrusion of the government and, on the other hand, the WTO liberalization agenda tries to keep the government out of it. The significance of trade in data is recognised globally, however each country has its own approach towards regularizing flow of data and data protection. Some countries like EU and US, though distinct in their approach are still way ahead in their policies dealing with digital trade as compared to other developing countries. Countries like India which are still in the process of drafting their data protection laws are unable to benefit from the data that is generated within the country. The lack of common policy and differential approach by countries is making it harder for organisations to make legitimate use of big data and therefore there is an urgent need to bring about harmonization and certainty in the data protection law at the global level. The issue has been recognized by WTO and efforts are being undertaken in form of WTO negotiation rounds and Ministerial conferences. However, while developing uniform and certain rules, care should be taken to ensure that the rules which are acceptable to all shall be adopted and the hegemony of a few selected countries should not be considered.