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IDEOLOGY CRITIQUE OF TRADE LIBERALISATION IN THE DIGITAL TRADE ERA: THE ECONOMICS-LAW-TECHNOLOGY IDEOLOGY NEXUS

JEREMMY OKONJO*

This article revisits the historical ideology critiques of free trade theory and the World Trade Organization's (WTO) trade liberalisation regime, and explores the extent to which these critiques and policy concerns, including increasing inequitable development, widening digital divides, and market concentration, are amplified in the digital trade era. The article also explores why, despite the amplification of these concerns, the trade liberalisation paradigm remains the rational trade policy framework for governing the global digital economy. This paper argues that the resilience and reproduction of trade liberalisation as a trade policy paradigm in the digital era cannot be understood or explained purely on economic terms. It should be analysed through the framework of ideology critique that articulates the co-constitutive, mutually-reinforcing ideological roles of free trade theory, international trade law, and digital technologies in reproducing trade liberalisation as the only rational trade policy paradigm. The article develops this argument by adopting the concepts and methodologies of 'ideology' and 'ideology critique' of free trade theory, WTO law and digital technologies, as developed by Critical Legal Studies, Third World Approaches to International Law scholarship, and science and technology studies (STS). It explores how the ideologies of free trade, trade liberalisation law, and technological rationality and determinism are co-constitutive and mutually-reinforcing, and are used to maintain domination in the international trade regime, through the ideological strategies of universalisation, reification, naturalisation, rationalisation, and narrativisation. The consequence of this ideological assemblage is the resilience of the WTO's trade liberalisation regime against the historical ideology critiques of free trade.

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I. INTRODUCTION

More than two centuries after its formulation, David Ricardo's Theory of Comparative Advantage, which justifies free trade, remains the intellectual foundation of the contemporary liberalised global trading system governed by the World Trade Organization's multilateral regime.¹ During this period, and especially after the establishment of the post-WWII General Agreement on Tariffs and Trade (GATT) at Bretton Woods, Ricardo's free trade theory has been subjected to sustained ideology critique, including challenges to its economic assumptions, and also against empirical evidence of the effects of free trade.² Developing country members of GATT and its successor the World Trade Organization (WTO) have contested the unequal distributive and developmental consequences of trade liberalisation, which have failed to match up to Ricardo's promise of mutual gains and higher aggregate welfare. However, despite the theoretical, empirical, and political challenges to trade liberalisation paradigm, free trade theory has remained resilient as the ideational cornerstone of the multilateral trading system.

The dynamics of the emergent global digital economy, characterised by increased digital trade, have reinforced the traditional critiques of trade liberalisation. Ricardian assumptions of nationally-bounded production and immobile factors of production have been upended by the contemporary digital economy, characterised by mobility of capital, labour, entrepreneurship, and de-territorialised and dematerialised assets such as data and other intellectual property assets. In addition, the global digital economy is increasingly characterised by increasing global North-South economic inequalities, an increasing digital divide, global North market concentration and the

¹ *Infra*, Part II, Sub-Part B.

² Carlos Lopes, *Comparative Advantage is an Old-Fashioned Trick*, in THE SELF-DECEPTION TRAP: EXPLORING THE ECONOMIC DIMENSIONS OF CHARITY DEPENDENCY WITHIN AFRICA-EUROPE RELATIONS 59 (Carlos Lopes ed., 2024); Reinhard Schumacher, *Deconstructing the Theory of Comparative Advantage*, 2 WORLD SOC. & ECON. REV. 83 (2013); Jorge Morales Meoqui, *Overcoming Absolute and Comparative Advantage: A Reappraisal of the Relative Cheapness of Foreign Commodities as the Basis of International Trade*, 43(3) J. HIST. ECON. THOUGHT 433 (2021).

emergence of global oligopolies, extractive data capitalism with inequitable value capture in global value chains, and increasing power asymmetries between global North firms and countries, on the one hand, and global South firms and countries, on the other hand. The digital economy context of global trade liberalisation therefore exacerbates the ideology critiques of free trade theory and the WTO trade liberalisation regime.

However, despite this deepening crisis of legitimacy, the trade liberalisation paradigm remains resilient. It is reproduced in both the WTO and preferential trade agreements that increasingly govern digital trade disciplines through the free trade principles of non-discrimination, market access, predictability through binding, fair competition, and special and differential treatment (S&DT). WTO agreements that ideologically reproduce digital trade liberalisation (through both explicit provisions and also interpretational expansion by the WTO Dispute Settlement Body) include the 1994 General Agreement on Trade in Services (GATS), the 1994 Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS), the 1996 plurilateral Information Technology Agreement (ITA), the 1998 E-Commerce Moratorium, and the 2026 E-Commerce Agreement.

This paper therefore explores the extent to which the historical ideology critiques of free trade theory are exacerbated in the digital trade era, and why the trade liberalisation paradigm remains a legitimate and resilient trade policy paradigm, despite increasing contestation, especially by developing country members of the WTO. This paper argues that the resilience and reproduction of trade liberalisation as a trade policy paradigm in the digital era cannot be understood or explained purely on economic terms. The resilience of trade liberalisation should be analysed through the framework of ideology critique that articulates the co-constitutive, mutually-reinforcing ideological roles of free trade theory, international trade law, and digital technologies in reproducing trade liberalisation as the only rational trade policy paradigm.

The paper develops this argument by adopting the concepts and methodologies of 'ideology' and 'ideology critique' of free trade theory, WTO law and digital technologies, as developed by Critical Legal Studies, Third World Approaches to International Law scholarship, and science and technology studies (STS). It explores how the ideologies of free trade, trade liberalisation law, and technological rationality and determinism are co-constitutive and mutually-reinforcing, and are used to maintain domination in the international trade regime, through the ideological strategies of universalisation, reification, naturalisation, rationalisation, and narrativisation. The consequence of this ideological assemblage is the resilience of the WTO's trade liberalisation regime against the historical ideology critiques of free trade.

The paper is structured as follows. Part II articulates the concepts of ‘ideology’ and ‘ideology critique’ as frameworks for critical engagement with international law, and then applies these frameworks to demonstrate the ideological nature and ideology critique of Ricardo’s free trade theory, and the WTO trade liberalisation regime. Part III contextualises the ideology critiques of free trade theory and WTO law in the digital trade era, by developing a framework for understanding the resilience of the trade liberalisation paradigm through the co-constitutive relationships between three mutually-reinforcing ideologies: free trade theory, WTO trade liberalisation law, and technological rationality and efficiency. Part IV applies this framework for ideology critique of digital trade liberalisation to four WTO agreements that play a fundamental role in the liberalisation of the contemporary digital trade: the TRIPS, the ITA, the 1998 e-Commerce Moratorium, and the 2026 e-Commerce Agreement. Part V outlines the main findings of the paper.

II. IDEOLOGY CRITIQUE OF FREE TRADE THEORY AND THE WORLD TRADE ORGANIZATION REGIME

A. *Ideology Critique in Critical Approaches to International Law*

1. Meaning of Ideology

Critical approaches to International law conceptualise ideology as “the ways in which meaning serves to establish and sustain relations of domination”,³ and also to articulate the relationship between ideas and structures of power, and, importantly, “the ways in which meaning can be used as a political tool”.⁴ The power of ideology is located in its ability to connect and combine diverse mental elements (including concepts and ideas) into combinations that influence and structure the perception and cognition of social agents, and create a basis for action or inaction.⁵ While different ideologies are inherent in various ideational systems, and are products of how meaning is produced, diffused, understood, and used in different contexts, Marks argues that ideology operates through five related strategies: universalisation, reification, naturalisation, rationalisation, and narrativisation.⁶

³ JOHN B. THOMPSON, *IDEOLOGY AND MODERN CULTURE: CRITICAL THEORY IN THE ERA OF MASS COMMUNICATION* 56 (1990) [hereinafter Thompson].

⁴ Shirley V. Scott, *International Law as Ideology: Theorizing the Relationship between International Law and International Politics*, 5(3) EUR. J. INT’L. L. 313, 318 (1994).

⁵ *Id.* at 318; Alan Hunt, *The Ideology of Law: Advances and Problems in Recent Applications of the Concept of Ideology to the Analysis of Law*, 19(1) L. & SOC’Y. REV. 11, 16 (1985) [hereinafter Hunt].

⁶ Susan Marks, *Big Brother Is Bleeping Us-with the Message That Ideology Doesn’t Matter*, 12(1) EUR. J. INT’L. L. 109, 112 (2001) [hereinafter Marks] (this typology is adapted from Thompson’s original classification of five strategies: legitimization, dissimulation, unification, fragmentation, and reification); *see also* Thompson, *supra* note 3, at 60.

Universalisation involves presenting legal, economic, social and political institutions as objective, impartial, and inclusive, thus creating an illusory unity that masks power asymmetries. For example, the principle of sovereign equality of States, codified in Article 291 of the United Nations (UN) Charter, while formally universal, co-exists with deeply unequal structures of power, including the UN Security Council (UNSC) veto system under Article 27(3), which grants disproportionate authority over the global governance system to five permanent members of the Council. The ideological function of formal legal equality is to present actors as juridically equal, while obscuring material inequalities in power relations.

The second, reification, entails the conversion of products of human action into transcendental essences, which then dominate their creators; domains of action are converted into fixed and unchangeable, and sometimes, fetishised, phenomena. The UN Charter engages in ideological reification by presenting hegemonic institutions such as the UNSC as necessary, fixed and unchangeable features of the global governance system aimed at maintaining global law and order, rather than an outdated geopolitical institutionalisation of historically contingent power relations in the post-World War II era.⁷

The third strategy, naturalisation, makes contested arrangements appear obvious and self-evident, and are separate from domains of social action (despite being proxies for normative arrangements), thus foreclosing the imagination of alternatives.⁸ For example, the doctrine of territorial State sovereignty, which is foundational to the exercise of jurisdiction under international law, and which has been codified in cases such as the *Island of Palmas* (1928),⁹ naturalises particular territorial organisation of political authority, obscuring its contested historical emergence through colonial expansion and geopolitical contestation. International law can render such territorial arrangements as natural, thereby foreclosing alternative political and territorial configurations.¹⁰

⁷ Ian Hurd, *Myths of Membership: The Politics of Legitimation in UN Security Council Reform*, 14(2) GLOBAL GOVERNANCE 199 (2008); Simon Chesterman, *Untied Nations? Saving the UN Security Council*, 36(4) EUR. J. INT'L. L. 1089 (2025); Erik Voeten, *The Political Origins of the UN Security Council's Ability to Legitimize the Use of Force*, 59(3) INT'L. ORG. 527 (2005).

⁸ Victoria Nourse, *Law's Constitution: A Relational Critique*, 17(1) WIS. WOMEN'S L. J. 23, 24 (2002).

⁹ *Island of Palmas* (Netherlands v United States of America) 2 RIAA 829 (1928).

¹⁰ Cait Storr, *Denaturalising the Concept of Territory in International Law*, in LOCATING NATURE: MAKING AND UNMAKING INTERNATIONAL LAW 179 (Julia Dehm & Usha Natarajan eds., 2022).

The fourth strategy, rationalisation, involves “*the construction of a chain of reasoning of which the status quo is the logical conclusion...[where] it may be made to seem as if there are good reasons why things are as they are.*”¹¹ Consequently, imagining a change in the status quo is deemed irrational.

The fifth strategy, narrativisation, involves the historicising of particular developments through narratives that endow respectability on certain practices and institutions, and legitimises their perpetuation as progressive.¹² For example, international law is frequently situated within a narrative of post-war reconstruction and liberal internationalism, beginning with the 1941 Atlantic Charter¹³ and culminating in the 1945 UN Charter.¹⁴ International law is presented as part of a transition from “a world of chaos and conflict” to a “rules-based system”, thereby legitimising existing international law institutions such as the UNSC as the culmination of rational historical development, rather than a contingent outcome of political struggle, and a juridical conversion of inequitable colonial relationships into multilateral relationships marked by sovereign inequality.¹⁵ Understood in a critical rather than a neutral sense, ideology is therefore associated with ideas that maintain domination by one group over others.

2. Meaning of Ideology Critique

Ideology critique, as developed in Critical Legal Studies (CLS) and Marxist Approaches to International Law, is a methodological tool that aims to not only lay bare the relationship between the understanding of concepts and domination in capitalist societies, but also to alter that understanding and those relationships, so as to engage in progressive politics.¹⁶ First, it unravels processes of legitimation, showing how particular socio-economic arrangements are universalised, reified, naturalised, rationalised, or narrativised. As Marks explains, ideology critique asks how “*that which appears necessary entrenches historical injustices, that which seems universal serves particular interests, and that which purports to be rational functions as an argument against redistributive claims.*”¹⁷ Second, ideology critique re-situates phenomena historically and contingently, insisting that legal and economic orders are products of human choice rather than inevitability. Koskenniemi’s critique of international law’s

¹¹ Marks, *supra* note 6, at 112.

¹² *Id.*

¹³ Declaration of Principles, Known as the Atlantic Charter, Aug. 14, 1941, 204 L.N.T.S. 381.

¹⁴ Charter of the United Nations, June 26, 1945, 59 Stat. 1031, 145 U.N.T.S. 805 [hereinafter UN Charter].

¹⁵ Susan Marks, *International Judicial Activism and the Commodity-Form Theory of International Law*, 18(1) EUR. J. INT’L L. 199 (2007).

¹⁶ Hunt, *supra* note 5, at 11; David M. Trubek, *Where the Action Is: Critical Legal Studies and Empiricism*, 36 STAN. L. REV. 575, 590–591 (1984).

¹⁷ Marks, *supra* note 6, at 109.

tendency to present itself as objective and determinate underscores this point: legal arguments oscillate between apology and utopia, masking their political stakes.¹⁸ Third, ideology critique exposes the indeterminacy and contradictions inherent in particular ideas, concepts and theories, thereby weakening their cognitive hold.

However, the praxis of ideology critique entails reappropriating the indeterminacy of certain ideas, concepts and theories by converting this indeterminacy into a site for political struggle, where dominant ideas can either be reproduced or deconstructed. Fourth, ideology critique is emancipatory. It is not content with description, but rather aims to reopen political imagination and inspire action by revealing the gap between the promise of normative ideals such as equitable development and democracy, and their realisation in various social, economic, political and institutional settings.

B. *Ideology Critique of Ricardo's Comparative Advantage Theory of Free Trade*

David Ricardo's theory of comparative advantage remains the foundational economic justification for free trade.¹⁹ Ricardo argued that international trade could be mutually beneficial even when one country possessed an absolute advantage in the production of all goods, provided that each country specialised in goods it could produce at a lower relative cost, measured in labour time.²⁰ Ricardo's model assumed "labour hours, treated as a single homogeneous input," constant returns to scale, full employment, immobile capital, and automatic current-account-based price adjustment between countries.²¹ Under these conditions, specialisation according to comparative advantage would yield efficiency gains and higher aggregate welfare.

David Ricardo formulated the classical theory of comparative advantage in 1817, to explain why countries engage in international trade, despite one country's workers being more efficient at producing every single good than workers in another country.²² As a reformulation of Adam Smith's earlier theory of Absolute Advantage,²³ Ricardo argued that a country would always stand to gain from trade if it were to export the goods it could produce comparatively more cheaply at home,

¹⁸ China Mieville, *The Commodity-Form Theory of International Law*, in *INTERNATIONAL LAW ON THE LEFT: RE-EXAMINING MARXIST LEGACIES*, 94 (Susan Marks ed., 2008).

¹⁹ DAVID RICARDO, *ON THE PRINCIPLES OF POLITICAL ECONOMY, AND TAXATION* 156-157 (2015) [hereinafter Ricardo].

²⁰ *Id.*

²¹ Sunanda Sen, *International Trade Theory and Policy: What Is Left of the Free Trade Paradigm?*, 36(6) *DEV. & CHANGE* 1011, 1012-1013 (2005) [hereinafter Sen].

²² Ricardo, *supra* note 19, at 156-157.

²³ ADAM SMITH, *AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS* (1979).

in exchange for those it could get comparatively more cheaply by importing from abroad. Therefore, even if one country can produce everything more cheaply than another country, both countries would benefit from trade if there are differences in their comparative costs. However, this theory rests on a number of assumptions. First is that the market will ensure that exports are exchanged for an equivalent number of imports, so that trade is balanced. Second, for balanced trade to hold, the terms of trade (or real exchange rate) of a country must fall whenever a country has a trade deficit, and the trade deficit must diminish in response. Third, any loss of employment in the import-competing sector must be purely transitional, so that full employment is maintained in the longer run. Other assumptions include immobile capital. Ricardo argued that international trade under these conditions would yield efficiency gains and higher aggregate welfare for all countries. Comparative Advantage theory of free trade remains the intellectual foundation of the modern trade liberalisation regime.

Subsequent economic theorists have attempted to refine Ricardo's theory, while maintaining its core arguments and assumptions. For example, John Stuart Mill introduced the concept of "reciprocal demand" to explain the determination of terms of trade, while Alfred Marshall incorporated demand more systematically through the offer-curve framework.²⁴ In addition, Twentieth-century neo-classical trade theory, particularly the Heckscher-Ohlin and Heckscher-Ohlin-Samuelson (HOS) models, reformulated comparative advantage around relative factor endowments rather than labour productivity alone. These models framed free trade as Pareto-optimal, premised on identical technologies, perfect competition, immobile factors, and full employment.²⁵

Although "new trade theories" later incorporated imperfect competition, economies of scale, and product differentiation, Sen notes that they did not depart from the basic thrust of the original models in terms of Pareto-optimality under free trade.²⁶ Comparative advantage thus persisted as the core normative justification for trade liberalisation despite increasingly complex real-world trade dynamics.

1. Free Trade Theory as Ideology

The ideological nature of free trade theory is demonstrated in Marx's critique of classical political economy, including Ricardo's free trade theory abstractions, as transforming historically contingent social relations into seemingly natural economic

²⁴ Sen, *supra* note 21, at 1013–1014.

²⁵ Paul A. Samuelson, *International Factor-Price Equalisation Once Again*, 59(234) ECON. J. 181 (1949).

²⁶ Sen, *supra* note 21, at 1011.

laws.²⁷ Through universalisation, comparative advantage is presented as a timeless law applicable to all societies, irrespective of historical and economic context. Through naturalisation, international specialisation by countries appears as the outcome of inherent efficiencies rather than political economy. Through rationalisation, trade liberalisation is framed as the only “reasonable” policy choice, rendering alternatives such as industrial policy, infant industry protection, and economic redistribution as irrational or inefficient policy choices. The ideology of free trade theory therefore legitimises the existing hierarchies while invoking ideals of efficiency and welfare.

2. Ideology Critique of Free Trade Theory

Ideology critique of Ricardian and neoclassical free trade theory targets its inaccurate assumptions and weak empirical foundations. For example, classical and neo-classical models assume full employment, immobile capital, balanced trade, and automatic adjustment to trade deficits, assumptions that “fail to address the world of realities.”²⁸ These critics note that the implication of the collapse of these assumptions is that free trade may cause economic displacement, including rising unemployment, slower growth, and increasing inequality, which factors erode any realised economic gains of comparative advantage.²⁹

More fundamental critiques question the internal consistency of comparative advantage theory itself. Baiman argues that even when Ricardo’s explicit assumptions are accepted, “*there is no theoretical basis for claims that free-market forces will necessarily lead to a sustainable realisation of these benefits.*”³⁰ From this perspective, free trade does not reliably generate balanced growth, full employment, or equitable distribution without active State intervention. Empirically, persistent trade imbalances, uneven industrialisation, and long-term divergence between core and

²⁷ INTERNATIONAL LAW ON THE LEFT: RE-EXAMINING MARXIST LEGACIES 7 (Susan Marks ed., 2008).

²⁸ Sen, *supra* note 21, at 1014–1016.

²⁹ See generally Matías Vernengo, *What Do Undergrads Really Need to Know about Trade and Finance?*, in POLITICAL ECONOMY AND CONTEMPORARY CAPITALISM: RADICAL PERSPECTIVES ON ECONOMIC THEORY AND POLICY 177 (Ron Baiman, Heather Boushey, & Dawn Saunders eds., 2015); ARTHUR MACÉWAN, NEO-LIBERALISM OR DEMOCRACY?: ECONOMIC STRATEGY, MARKETS, AND ALTERNATIVES FOR THE 21ST CENTURY (2000).

³⁰ Ron P. Baiman, *The International “Free Market” for Trade and Investment: Capital’s Global Power Play*, in THE MORALITY OF RADICAL ECONOMICS: GHOST CURVE IDEOLOGY AND THE VALUE NEUTRAL ASPECT OF NEOCLASSICAL ECONOMICS 195, 196 (2016).

peripheral economies undermine the universal “mutual gains” narrative traditionally associated with free trade.³¹

C. *Ideology Critique of the WTO Trade Liberalisation Regime*

The ideology of comparative advantage theory has played a foundational role in shaping the intellectual foundations of the post-World War II multilateral trading system, replacing the prevailing mercantilist inter-war doctrines. VanGrasstek argues that that policymakers would not have liberalised trade unless they believed that states could derive “mutual gains from freer trade” by exploiting an international division of labour based on comparative advantage and economies of scale.³² This belief informed the negotiation and adoption of the General Agreement on Tariffs and Trade (GATT) and later the Marrakesh Agreement establishing the WTO, even though neither instrument explicitly identifies free trade as a formal legal objective.³³

Nonetheless, WTO disciplines operationalise the comparative advantage theory of free trade through legally binding commitments under GATT, including: non-discrimination (that is, Most-Favoured Nation principle and the National Treatment principle); market access through reduction of tariff and non-tariff barriers; predictability through tariff bindings and transparency; and promotion of fair competition through removal of subsidies and anti-dumping commitments.³⁴ These rules institutionalise the assumption that market openness enables specialisation and efficiency gains, while law constrains overt power asymmetries between states. VanGrasstek argues that the multilateral trading system “*granted judicial equality and economic opportunity to other States that would, in earlier periods of history, have been subject to much more naked and one-sided exercises of power.*”³⁵ However, as argued in the rest of the paper, this formal juridical equality under the WTO regime has masked economic and political asymmetries, and persistent unilateralism that undermines the promise of free trade.

Beyond the multilateral rules under the WTO regime, the comparative advantage theory also underpins the expansion of preferential trade agreements (PTAs). These include “WTO-plus” PTAs that deepen existing WTO obligations, especially in

³¹ Eric Sheppard, *The Free Trade Doctrine - A Critique*, in LIMITS TO GLOBALIZATION: THE DISRUPTIVE GEOGRAPHIES OF CAPITALIST DEVELOPMENT, 97–102 (2016) [hereinafter Sheppard].

³² CRAIG VANGRASSTEK, THE HISTORY AND FUTURE OF THE WORLD TRADE ORGANIZATION 4 (2013) [hereinafter VanGrasstek].

³³ Donatella Alessandrini, *WTO and Current Trade Debate: An Enquiry into the Intellectual Origins of Free Trade Thought*, 11 INT'L. TRADE L. & REGS J. 53, 53 (2005) [hereinafter Alessandrini].

³⁴ General Agreement on Tariffs and Trade 1994, Apr. 15, 1994, 1867 U.N.T.S. 187.

³⁵ VanGrasstek, *supra* note 32, at 4.

services, investment, and intellectual property, and “WTO-extra” provisions that extend trade disciplines beyond the current scope of WTO agreements, into regulatory domains traditionally associated with domestic governance.³⁶ Sen observes that advanced economies increasingly rely on strategic trade and industrial policy domestically while continuing to invoke free trade doctrine to justify liberalisation pressures on developing countries through multilateral and bilateral instruments.³⁷ This asymmetry is a defining feature of contemporary trade governance.

1. WTO Law as ideology

Chimni argues that contemporary international law is the principal language in which domination is coming to be expressed in the era of globalisation, particularly through international trade and financial institutions enforcing a neo-liberal agenda.³⁸ Chimni explicitly links trade liberalisation to the “relocation of sovereign economic powers in international trade and financial institutions”, framing this as a process of contemporary recolonisation.³⁹ WTO disciplines on subsidies, tariffs, and regulatory autonomy limit the capacity of developing states to pursue industrialisation strategies historically used by today’s developed economies. The strategies of ideology are visible in the operation of the WTO regime. For example, universalisation is operationalised through the principle of non-discrimination under Articles II (most-favoured nation treatment) and XVII (national treatment) of the GATS, by presenting trade liberalisation as a universal and impartial rule requiring equal treatment of like services irrespective of origin.⁴⁰ This formal equality of WTO Members obscures structural inequalities in productive capacity, technological development and market power, thereby universalising a particular model of market power while masking the uneven conditions under which States participate in international trade. The inclusion of Special and Differential Treatment provisions in these agreements has not sufficiently addressed these uneven conditions.⁴¹

³⁶ Henrik Horn, Petros C. Mavroidis & André Sapir, *Beyond the WTO? An Anatomy of EU and US Preferential Trade Agreements*, 33(11) WORLD ECON. 1565, 1567 (2010).

³⁷ Sen, *supra* note 21, at 1011–1012.

³⁸ BS Chimni, *Third World Approaches to International Law: A Manifesto*, 8 INT’L COMM. L. REV. 3, 3 (2006).

³⁹ *Id.*

⁴⁰ General Agreement on Trade in Services, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, 1869 U.N.T.S. 183, 33 I.L.M. 1167 (1994) [hereinafter GATS].

⁴¹ Sharmin Tania et al., *Reimagining the Special and Differential Treatment Provisions in the WTO’s Dispute Settlement Understanding*, 14(1) ASIAN J. INT’L. L. 123 (2024); ANWARUL HODA, WTO REFORM: ISSUES IN SPECIAL AND DIFFERENTIAL TREATMENT (S&DT) (2021).

Ideological reification is evident in how WTO legal provisions (such as the binding tariff commitments under GATT, and market access and non-discrimination commitments under GATS) institutionalise comparative advantage and trade liberalisation principles as fixed, objective principles, transforming context-specific, geographically and historically-contingent policy choices into binding legal obligations, into legally-binding normative baselines for economic conduct. For example, in *India—Quantitative Restrictions*, the WTO Appellate Body upheld the panel ruling that India's import restrictions on agriculture textiles and industrial products to address its balance of payments position in a fragile economy, were unjustified, emphasising the primacy of trade liberalisation commitments.⁴²

WTO law engages in ideological naturalisation when it frames contested political-economic trade liberalisation arrangements and obligations as neutral and self-evident, thereby depoliticising trade governance, and rendering distributive conflicts invisible. For example, in *EC—Hormones*, the WTO Appellate Body framed the dispute in terms of scientific risk assessment under Article 5.1 of the Agreement on Sanitary and Phyto-Sanitary Measures (SPS), thereby narrowing the issue to technical compliance rather than broader societal political concerns about public health and regulatory autonomy.⁴³

Ideological rationalisation under WTO law is evident in how trade agreements construct trade liberalisation as logically necessary and economically-efficient, thereby delegitimising alternative trade policies unless justified through legal-economic technical tests outlined in the respective agreements. These technical justifications include 'necessity' tests under Article 2.2 of the Agreement on Technical Barriers to Trade (TBT), requiring States to engage in 'weighing and balancing' proportionality reviews to justify deviations from trade liberalisation rules as necessary.⁴⁴ These justification doctrines create a structured chain of reasoning in which trade liberalisation is the default, and domestic regulatory measures must be justified as rational exceptions through evidentiary demonstrations and alternative-measure comparisons. Consequently, alternative trade policy paradigms and development strategies such as protectionism and industrial policy, which do not meet the high legal thresholds under WTO agreements, are rendered irrational and illegitimate.

⁴² Appellate Body Report, *India—Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products*, WTO Doc. WT/DS90/AB/R (adopted Aug. 23, 1999).

⁴³ Appellate Body Report, *European Communities—EC Measures concerning Meat and Meat Products (Hormones)*, WTO Docs. WT/DS26/AB/R & WT/DS48/AB/R (adopted Feb. 13, 1998).

⁴⁴ Agreement on Technical Barriers to Trade, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1868 U.N.T.S. 120.

Ideological narrativisation in the text of WTO agreements and DSB decisions operates through the historical framing of trade liberalisation as a progressive and inevitable trajectory aimed at peace and prosperity, and a progressive response to the failures of trade protectionism that contributed to World Wars I and II. For example, the Preamble to the WTO Agreement links trade to rising standards of living and ensuring full employment.⁴⁵ This narrativisation frames the WTO as an embodiment of universal values such as economic liberalisation and multilateralism, while obscuring the extent to which it reflects specific ideological and geopolitical projects associated with economically-dominant State and market actors.

Socio-legal critiques reinforce this analysis by highlighting how WTO law treats market outcomes as neutral while sidelining private power. For example, Gonzalez argues that free trade mythology obscures how trade rules “reinforce the economic dominance” of transnational corporations by constraining state intervention while ignoring market concentration.⁴⁶ The concealing tactic of ideology is that WTO law does not simply reflect comparative advantage; it helps produce it, by locking in patterns of specialisation and disciplining deviation. The regime’s emphasis on predictability, efficiency, and non-discrimination functions rhetorically to marginalise claims for redistribution, policy space, or historical redress.

2. Ideology Critique of WTO Law

Specific critiques of the WTO law and practice demonstrate its ideological nature. First, normative critiques highlight distributional and democratic concerns within the WTO regime: multilateral trade agreements legitimate and reproduces the unequal distribution of wealth, power and representation, which existed during the imperial trade era.⁴⁷ For example, at the domestic level, the liberalisation of trade leads to economic dislocation of various groups which are pushed out of the market by cheaper imports. While Ricardo argues that these groups would be compensated by the State out of the surplus gained from international trade, the reality especially in developing countries is that such compensation mechanisms do not exist. In addition, at the international level, the WTO regime assumes that the sovereign equality of States as provided in the multilateral trade agreements is reflected in the practice of States. The reality is that the multilateral trade regime is embedded in a

⁴⁵ Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154, 33 I.L.M. 1144 (1994).

⁴⁶ Carmen Gonzalez, *Deconstructing the Mythology of Free Trade: Critical Reflections on Comparative Advantage*, 17(1) BERKELEY LA RAZA L. J., 65, 84 (2006).

⁴⁷ Alessandrini, *supra* note 33; DONATELLA ALESSANDRINI, DEVELOPING COUNTRIES AND THE MULTILATERAL TRADE REGIME: THE FAILURE AND PROMISE OF THE WTO’S DEVELOPMENT MISSION (2010).

geopolitical landscape of deep economic, political and diplomatic power asymmetries.⁴⁸

Second, the theoretical assumptions of comparative advantage theory, including international immobility of factors of production (including labour, capital, and entrepreneurship), and nationally-bounded economic production, are upended by the contemporary material structure of the global economy. For example, contemporary international trade is characterised by the dominance of trans-national corporations (TNCs), deeply integrated global value chains (GVCs) and global production networks (GPNs), and highly mobile factors of production such as labour, capital, and entrepreneurship. A key feature of these GVCs and GPNs is that lead firms in developed countries outsource “their peripheral, and frequently low-value, productive functions to low-cost countries and regions, while maintaining control of core nodes of value creation and retention in their home countries”.⁴⁹

One of the consequences of this GVC feature is the inequitable value capture between lead firms and other firms lower in the value chain, and ultimately, between countries, due to the fact that value creation and appropriation is governed by rents such as intellectual property rights, and also market power, which are both controlled by lead firms in most instances.⁵⁰ GVC and GPN dynamics therefore undermine the Comparative Advantage theoretical premise that specialisation according to comparative advantage leads to aggregate welfare gains. Another consequence of the emergence of TNCs, and their market domination in the global economy, is their increasing corporate influence over multilateral trade and bilateral trade negotiations, destabilising assumptions of market neutrality. Indeed, the successes and gridlock in WTO trade negotiations have been linked to TNC agenda-setting power, which has raised concerns about policy capture and asymmetric influence in the multilateral trade regime.⁵¹

Third, contradictions in free trade practice by WTO Member States expose the gap between rhetoric and reality. Trade liberalisation at the WTO has been selective, with powerful states maintaining protection in domestically-sensitive economic

⁴⁸ Alessandrini, *supra* note 33, at 55.

⁴⁹ Jeffrey Neilson, Bill Pritchard & Henry Yeung Wai-Chung, *Global Value Chains and Global Production Networks in the Changing International Political Economy: An Introduction*, in GLOBAL VALUE CHAINS AND GLOBAL PRODUCTION NETWORKS: CHANGES IN THE INTERNATIONAL POLITICAL ECONOMY 1 (Jeffrey Neilson, Bill Pritchard, & Henry Yeung Wai-Chung eds., 2017).

⁵⁰ Dennis Davis et al., *Rents, Power and Governance in Global Value Chains*, 24(1) J. WORLD-SYS. RES. 43, 44–47 (2018) [hereinafter Davis et al.].

⁵¹ Penelope Milsom et al., *Corporate Power and the International Trade Regime Preventing Progressive Policy Action on Non-Communicable Diseases: A Realist Review*, 36(4) HEALTH POL'Y. & PLAN 493 (2021).

sectors while promoting trade openness in sectors of export interest. In addition, more economically-powerful developing countries such as China and Brazil have also supported trade liberalisation in sectors where they are globally competitive, while opposing trade liberalisation in certain sectors, such as the digital economy (in China's case).⁵² Indeed, the industrialised, developed economies relied extensively on trade protectionism, industrial policy, and colonial or informal empire during their industrial development, before advocating trade liberalisation for the new, post-colonial countries. Sheppard argues that what is now dismissed as 'protectionism' was central to the success of second-generation industrialisers.⁵³ This contradiction underpins the "kicking away the ladder" critique, which questions the legitimacy of imposing strict trade liberalisation disciplines on developing countries.⁵⁴

Finally, ideology critiques also maintain that free trade theory and WTO law depoliticise trade by marginalising social, environmental, and human rights concerns. Trade law has traditionally treated labour standards and environmental protection as externalities or exceptions, rather than as constitutive elements of economic governance. Alessandrini argues that this separation allows trade law to prioritise market access and capital mobility while displacing distributive and ethical questions beyond the core of legal analysis.⁵⁵ This de-politicisation of trade obscures the social costs of trade liberalisation and constrains alternative economic development pathways.

III. IDEOLOGICAL CRITIQUE OF FREE TRADE IN THE DIGITAL TRADE ERA

A. *The Emergence of Digital Trade*

The emergence of digital innovations, and their embedding in social and economic life, that is, digitalisation, has transformed the patterns of production, exchange, and consumption of goods and services in domestic economies and the global economy.

⁵² Stefan Schmalz & Matthias Ebenau, *After Neoliberalism? Brazil, India, and China in the Global Economic Crisis*, in *THE STATE-CAPITAL NEXUS IN THE GLOBAL CRISIS* (2014); Chantal Thomas, *Trade and Development in an Era of Multipolarity and Reterritorialization*, 44(1) *YALE J. INT'L L. ONLINE* 77 (2018); Kristen Hopewell, *SHIFTING POWER: THE RISE OF BRAZIL, INDIA AND CHINA AT THE WTO* (2012), <https://hdl.handle.net/2027.42/94073>; Clara Weinhardt, *Emerging Powers in the World Trading System: Contestation of the Developing Country Status and the Reproduction of Inequalities*, 34(3) *GLOBAL SOC'Y* 388 (2020).

⁵³ Sheppard, *supra* note 31, at 99–102.

⁵⁴ See HA-JOON CHANG, *KICKING AWAY THE LADDER: DEVELOPMENT STRATEGY IN HISTORICAL PERSPECTIVE* (2002).

⁵⁵ Alessandrini, *supra* note 33, at 54–56.

Digitalisation has driven economic growth, characterised by increased productivity and innovation.⁵⁶ According to the WTO's 2022 statistics, digitally delivered services accounted for approximately 54% of global services exports, with growth in services trade outpacing growth in trade in goods.⁵⁷ Digital trade is defined as "all international trade that is digitally ordered and/or digitally delivered."⁵⁸ The definition references how transactions occur, focusing on "digital ordering" and "digital delivery" as the defining criteria.⁵⁹ This definition includes e-commerce transactions, digitally delivered services (such as software, cloud computing, and streaming), and traditional goods increasingly dependent on embedded digital services and data.

Digitalisation has positively impacted on global international trade in various ways. First, it has promoted efficiency in production, exchange and consumption processes by reducing information, communication and coordination costs incurred by market actors, especially in cross-border transactions.⁶⁰ In addition, firms have leveraged various digital tools to access and operate in foreign markets. Indeed, e-commerce has resulted in growth in international trade volumes.⁶¹ Second, digitalisation has expanded the services component of international trade, by enabling the remote delivery of services through cross-border data flows.⁶² This has contributed to a major structural shift towards digitally-delivered goods and services.⁶³ Third, digitalisation has reconfigured GVCs by facilitating the unbundling of production processes across borders, therefore enabling more economic specialisation and realising more productivity gains.⁶⁴ For example, software development can be undertaken in jurisdictions with stringent IP enforcement frameworks, therefore promoting innovation, while the manufacturing component

⁵⁶ WORLD TRADE ORGANIZATION ET AL., DIGITAL TRADE FOR DEVELOPMENT 3 (2023) [hereinafter WTO Digital Trade].

⁵⁷ *Id.*

⁵⁸ WORLD TRADE ORGANIZATION ET AL., HANDBOOK ON MEASURING DIGITAL TRADE 5 (2nd ed. 2023).

⁵⁹ *Id.*

⁶⁰ WTO Digital Trade, *supra* note 56, at 8–9.

⁶¹ EDDY BEKKERS ET AL., THE LONG-RUN IMPACT OF DIGITALIZATION ON TRADE PATTERNS 12–13 (2024) [hereinafter Bekkers]; UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, DIGITAL ECONOMY REPORT 2019: VALUE CREATION AND CAPTURE: IMPLICATIONS FOR DEVELOPING COUNTRIES 106–107 (2019) [hereinafter UNCTAD Report 2019].

⁶² Mira Burri, *The Impact of Digitalization on Global Trade Law*, 24 GER. L. J. 551, 555–556 (2023) [hereinafter Burri].

⁶³ WTO Digital Trade, *supra* note 56, at 11–12.

⁶⁴ UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, TECHNOLOGY AND INNOVATION REPORT 2023, at 41–42 (2023); Burri, *supra* note 62, at 556; UNCTAD Report 2019, *supra* note 61, at 42–43.

can be undertaken in jurisdictions with abundant and cheaper skilled manufacturing labour force.⁶⁵ Fourth, digitalisation has also enabled increased inclusion and participation by groups that were previously locked out of international trade, including small and medium enterprises (SMEs) especially from developing countries.⁶⁶ This is because e-commerce and related digital platforms reduce fixed market entry costs for SMEs, enhances trust and transparency between market actors based in different countries through credit rating and dispute resolution mechanisms, and also improves contract enforcement.⁶⁷

Based on these positive impacts of digitalisation on international trade, policy discourses have framed digital trade liberalisation as a means of amplifying these digitalisation gains. For example, digital trade liberalisation can further reduce the costs of cross-border transactions by reducing regulatory barriers to cross-border data flows such as data localisation requirements or prohibitions on cross-border data flows.⁶⁸ Second, digital trade liberalisation can also reduce the costs of digital trade by reducing policy and law-induced frictions, especially in instances where countries have conflicting trade policy, law and regulatory frameworks.⁶⁹ Trade liberalisation can therefore enhance market access and cross-border economic integration. Third, trade liberalisation is also argued to promote innovation at global scale through knowledge diffusion and technology transfer, which are facilitated by cross-border data flows, thereby promoting economic growth, especially in low-income economies.⁷⁰ Lastly, digital trade liberalisation is also argued to promote broader participation in global markets, especially for developing countries.⁷¹ Reductions in trade costs may enable low-income economies to increase their share of global trade, especially in digitally-delivered services.⁷²

However, despite the positive narrativisation of the benefits of digitalisation and digital trade liberalisation, these positive outcomes are dependent on domestic

⁶⁵ UNCTAD Report 2019, *supra* note 61, at 42–43.

⁶⁶ WTO Digital Trade, *supra* note 56, at 17–19.

⁶⁷ UNCTAD Report 2019, *supra* note 61, at 107, 120–121; WTO Digital Trade, *supra* note 56, at 19; WORLD TRADE ORGANIZATION, UNITED NATIONS ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC, & UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW, CROSS-BORDER PAPERLESS TRADE TOOLKIT 5 (2022).

⁶⁸ Burri, *supra* note 62, at 558–560.

⁶⁹ WORLD TRADE ORGANIZATION, WORLD TRADE REPORT 2025: MAKING TRADE AND AI WORK TOGETHER TO THE BENEFIT OF ALL 100–101 (2025) (WTO Report 2025); Burri, *supra* note 62, at 558–560.

⁷⁰ WTO Digital Trade, *supra* note 56, at 9.

⁷¹ WTO Digital Trade, *supra* note 56, at 17–19.

⁷² Bekkers et al., *supra* note 61, at 24–26; WTO Digital Trade, *supra* note 56, at 17–18.

capabilities and regulatory environments, including digital infrastructure and institutional readiness,⁷³ and also a fair and equitable international trade landscape.

B. The Material and Ideological Impacts of Digitalisation on Global Trade

The ideology critiques of free trade theory discussed in Part II have gained renewed currency as the global economy has undergone successive structural transformations. International trade is no longer characterised primarily by arm's-length exchanges of finished goods between nationally bounded producers. Instead, it is increasingly organised through fragmented global production networks, intangible assets, and cross-border flows of data, capital, and services. As Sheppard observes, mainstream trade theory relies on a “*reductionist, geographically naïve equilibrium-oriented ontology*” that abstracts trade from its entanglements with finance, power, governance, and technology.⁷⁴ These abstractions were already strained by the rise of GVCs; they are further destabilised by contemporary shifts toward knowledge-based, platform-mediated, and digitally enabled forms of economic production, exchange and consumption.

The emergence of the digital economy represents a new phase in this structural transformation. Digital trade intensifies the ideology critique of the elements of free trade theory, including assumptions of balanced trade, full employment, competitiveness of the global markets, and power symmetries, which have been upended by the characteristics of contemporary global. The contemporary digital economy is characterised by balance of trade deficits, unemployment increasingly caused by automation, emergence of oligopolies in global digital markets, and deep power asymmetries between TNCs and local firms, and also between technologically-advanced States and technologically-deficient States.⁷⁵ At the same time, the emergent digital trade governance regime, composed of WTO agreements and preferential trade agreements, has also extended trade disciplines into new areas such as data regulation, platform governance, and domestic regulatory autonomy.⁷⁶ This transformation has introduced new economic sectors into the multilateral trade regime, and has also called into question the continued adequacy of comparative advantage as the organising logic of global trade governance.⁷⁷ This Part therefore

⁷³ WTO Digital Trade, *supra* note 56, at 3–4; UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, DIGITAL ECONOMY REPORT 2021 - CROSS-BORDER DATA FLOWS AND DEVELOPMENT: FOR WHOM THE DATA FLOW 132–134 (2021).

⁷⁴ Sheppard, *supra* note 31, at 97–101.

⁷⁵ UNCTAD Report 2019, *supra* note 61.

⁷⁶ Mira Burri et al., *The Evolution of Digital Trade Law: Insights from TAPED*, 23(2) WORLD TRADE REV. 190 (2024).

⁷⁷ Alan V. Deardorff, *Comparative Advantage in Digital Trade*, in CLOTH FOR WINE? THE RELEVANCE OF RICARDO'S COMPARATIVE ADVANTAGE IN THE 21ST CENTURY, 35 (2017).

turns to the emergence of digital trade in the shadow of the WTO, examining how digitalisation reshapes the object, instruments, and assumptions of free trade regulation.

1. Digitalisation as a material reconfiguration of global trade

The nature of digital trade, underpinned by the cross-border flow of data, and the digital transaction, exchange and consumption of good and services, has upended the ideational and institutional structure of the multilateral trade regime. The nature of cyberspace has challenged the territorial foundations of State sovereignty and the basis of determining the geographical flows of goods and services, for purposes of governance of cross-border trade.⁷⁸ Digitalisation has reorganised the material infrastructure of trade through data centres, undersea cables, cloud services, logistics platforms, and algorithmic coordination. This material reorganisation of global trade has also redistributed power in the global economy. For example, digital platforms are conceptualised as “privatised epistemic infrastructures,” that is, privately-held infrastructures for learning, which also shape how knowledge and value circulate globally.⁷⁹ This material control over infrastructure both de-territorialised and re-territorialises power in the global economy.

2. Digitalisation and the restructuring of value, production, and rents

Digitalisation has also altered how value is created and captured in the contemporary global economy: it privileges data extraction, network effects, and learning economies. As argued by Mann and Iazzolino, in digital competition, firms and workforces are not competing on cost or quality alone, but on accumulated knowledge and innovation capacity. They identify ‘knowledge premiums’ that protect advanced economies from competitive pressures, complicating Ricardian assumptions of reciprocal gains and static specialisation.⁸⁰

3. Digitalisation as ideology of technical rationality and technological determinism

Alongside these material shifts, digitalisation has ideological effects on global trade and its governance. Considering its extensive role in mediating socio-economic and political aspects of life, technology takes on the conceptual form of an ideology of

⁷⁸ Dana Burchardt, *Does Digitalization Change International Law Structurally?*, 24(3) GERMAN L. J. 438 (2023).

⁷⁹ LAURA MANN & GIANLUCA IAZZOLINO, *SEE, NUDGE, CONTROL AND PROFIT: DIGITAL PLATFORMS AS PRIVATIZED EPISTEMIC INFRASTRUCTURES 2* (2019) [hereinafter Mann & Iazzolino].

⁸⁰ *Id.* at 4.

‘technical rationality’, that is, the domination of society and its values by technical reason, in the form of methodical, scientific, calculated, and calculating control.⁸¹ This extensive reliance on technology has ontological and epistemological implications: the socially, historically, and geographically contingent becomes necessary; the particular becomes universal; the occasional, artificial and contingent historical experience becomes natural; and what ought to be a part is experience as a whole.⁸² Similarly, the ideology of technological determinism posits that technical development is independent of external factors, that is, technologies have an autonomous functional logic that can be explained without reference to society.⁸³ Consequently, social institutions and their related arrangements and progress must adapt to the imperatives of technology, entailing, for example, trade-offs between technological efficiency and social values.⁸⁴

4. Digitalisation and the ideological narrowing of regulatory imagination

The impact of the ideological nature of digital technologies is the narrowing of policy options for the governance of the global digital economy. For example, international trade discourses assume that restrictions on data flows are inherently inefficient, thereby creating policy binaries between digital liberalisation and other legitimate policy objectives. Ideology critique of digitalisation, however, treats liberalisation as socio-politically rather than technologically constructed arrangements. This reflects ideological rationalisation, in Marks’ sense, where the status quo of cross-border data flow liberalisation appears as the only logical outcome.

Ideology critiques of technological determinism and technical rationality are therefore sceptical of viewing ICTs as “liberation technologies” that “level the playing field,” describing such claims by New Institutional Economics (NIE) as “too reductive” for understanding the impact of digitalisation on the global economy and the developmental challenge in the global South.⁸⁵ The NIE discourse of digitalisation coopts the ideological strategies of universalisation and naturalisation, for example, where international institutions such as the WTO and the World Bank

⁸¹ Herbert Marcuse, *Industrialisation and Capitalism in the Work of Max Weber*, in NEGATIONS: ESSAYS IN CRITICAL THEORY 223 (Jeremy J. Shapiro trans., 2009).

⁸² Robert B. Pippin, *On the Notion of Technology as Ideology: Prospects*, in TECHNOLOGY, PESSIMISM, AND POSTMODERNISM 93, 96 (Yaron Ezrahi, Everett Mendelsohn, & Howard P. Segal eds., 1994).

⁸³ Andrew Feenberg, *Subversive Rationalization: Technology, Power, and Democracy*, 35(3) INQUIRY 301, 304 (1992) [hereinafter Feenberg]; Gunther Ropohl, *A Critique of Technological Determinism*, in PHILOSOPHY AND TECHNOLOGY 83, 86 (Paul T. Durbin & Friedrich Rapp eds., 2012).

⁸⁴ Feenberg, *supra* note 83, at 304.

⁸⁵ Mann & Iazzolino, *supra* note 79, at 1.

respond to the global South discontents with marginalisation in global value chains by recommending SME digitalisation.

In summary, digitalisation materially restructures global trade and also ideologically reinforces narratives of inevitability and efficiency. These dynamics intensify existing asymmetries while narrowing the space for contestation of technical, legal, and economic arrangements, making digitalisation a central site for ideology critique in contemporary trade law.

C. *Ideological Co-Constitution of Trade Liberalisation by Free Trade Theory and Digital Technology*

1. Technological ideologies as justificatory frames for “free” digital trade

Internet law and STS literatures demonstrate the framing of digital technologies through vocabularies of rationality, efficiency, and inevitability that normalise openness. Johnson and Post famously argue that cyberspace “*cuts across territorial borders*” and “*undermin[es] the feasibility—and legitimacy—of laws based on geographic boundaries*,” thereby “*radically subvert[ing]*” territorially based regulation.⁸⁶ This architectural narrative casts cross-border data movement as technologically “natural.” Lessig similarly identifies code as a regulator in cyberspace, and notes that early internet architectures “disable” governmental regulation.⁸⁷ These claims can be (and have been) translated into economic rationales for free digital trade, where frictionless data flows appear as efficiency imperatives rather than political choices.

2. Digital infrastructure and the de-territorialised regulatory state

Claims about de-territorialisation reinforce perceptions of state irrelevance in governance of digital trade. For example, Johnson and Post propose deference to “self-regulatory efforts of Cyberspace participants” where territorial law falters.⁸⁸ Lessig underscores that TCP/IP’s neutrality and anonymity complicate identification and control, making regulation appear impracticable.⁸⁹ Trade policy scholarship adopts these infrastructural premises to support trade rules mandating the permissibility of cross-border data transfer and prohibiting data localization”, to promote digital trade. Here, technical design is recoded into legal necessity, aligning with trade liberalisation as the baseline.

⁸⁶ David R. Johnson & David Post, *Law and Borders: The Rise of Law in Cyberspace*, 48(5) STAN. L. REV. 1367, 1367 (1996) [hereinafter Johnson & Post].

⁸⁷ Lawrence Lessig, *Code is Law: On Liberty in Cyberspace*, HARV. MAG. (Jan. 1, 2000) <https://www.harvardmagazine.com/2000/01/code-is-law-html> [hereinafter Lessig].

⁸⁸ Johnson & Post, *supra* note 86, at 1367–1368.

⁸⁹ Lessig, *supra* note 87, at 1–2.

3. Ideological co-constitution of free trade and digital technology markets

The co-constitution runs in reverse as well. Lessig's account of the internet's growth attributes its expansion to "openness", that is, "free code and access" which produced a boom that then "attracted the attention of commerce".⁹⁰ Trade liberalisation norms therefore shape technological and market structures by privileging openness and scale. The openness of the digital economy, and by extension, digital trade, has been juridified through data-flow disciplines in Preferential Trade Areas (PTAs) and investment/trade rules that operationalise digital trade liberalisation. These rules lock in platform dominance by specific global North digital platforms, and constrain regulatory experimentation in data localisation, technology transfer, and equitable taxation of the digital economy.⁹¹

Digital architectures are narrated as borderless and efficient, legitimating trade or economic liberalisation, which consequently shapes technological markets toward openness and concentration, and which are used to reaffirm inevitability of the digital markets structure. The circuit reproduces Ricardian trade openness in digital form, narrowing regulatory imagination while deepening economic, technological, and power asymmetries between the global North and the global South.

D. Ideological Co-Constitution of Trade Liberalisation by WTO Law and Technology

1. Technological ideology reinforcing WTO law's liberalisation logics

In policy literature advocating digital trade liberalisation, digital technological infrastructures are framed as requiring openness, interoperability, and frictionless cross-border operation, which framings reinforce the WTO regime's trade liberalisation logic. WTO accounts of the Information Technology Agreement (ITA) repeatedly emphasise efficiency gains from tariff elimination, noting that "zero-in zero-out" tariffs under the ITA eliminated costly administrative burdens at customs and reduced delays for goods crossing borders".⁹² Digitalisation is therefore positioned as materially dependent on globally liberalised ICT markets, rendering tariff-free trade in ICT goods appear technologically rational and economically necessary. Similar rationales are not extended to non-digital sectors, including agricultural and manufacturing sectors, which are subjected to import tariffs by

⁹⁰ LAWRENCE LESSIG, CODE: VERSION 2.0 146 (2006).

⁹¹ THERESA KOFLER ET AL., POLICY BRIEF ON DIGITAL TRADE 2, 12 (2022).

⁹² WORLD TRADE ORGANIZATION, 20 YEARS OF THE INFORMATION TECHNOLOGY AGREEMENT: BOOSTING TRADE, INNOVATION AND DIGITAL CONNECTIVITY 8 (2016) [hereinafter WTO: 20 Years of ITA].

global North countries championing digital trade liberalisation in developing countries.

Similar ideological narratives appear in debates on the e-commerce moratorium. When goods are digitally delivered, both tariffs and additional duties are lost if products are delivered digitally without customs duties. The implication (often implicit rather than explicit) is that digitisation structurally displaces customs-based regulation. The Organisation for Economic Co-Operation and Development's (OECD) analysis likewise frames electronic transmissions as transforming trade in ways that challenge traditional border instruments.⁹³ These narratives of technical efficiency demonstrate how digital infrastructure arrangements naturalise a duty-free baseline for electronic transmissions, shrinking WTO Members' fiscal and industrial policy space by presenting such outcomes as technologically inevitable rather than legislative and political choices.

In the services sector, WTO telecommunications disciplines embed similar rationales. The General Agreement on Trade in Services (GATS) Telecommunications Reference Paper stresses "the importance of international standards for global compatibility and inter-operability of telecommunication networks and services".⁹⁴ Interoperability discourses, grounded in technical efficiency, thereby reinforces binding market-access and regulatory commitments, narrowing regulatory discretion in the name of network functionality.

2. Digital trade rules shaping technological ideologies and market structures

The co-constitutive relationship between digital technologies and WTO trade rules is bi-directional: WTO liberalisation rules also actively shape digital technologies and the ideologies surrounding them. For example, Article 10(1) of the TRIPS Agreement legally reconstitutes software and data as tradable commodities by mandating that "computer programs, whether in source or object code, shall be protected as literary works".⁹⁵ This legal commodification of software and data converts technological arrangements into proprietary assets protected by IP rights, and therefore shielded from public disclosure, reinforcing ideologies of technical rationality and determinism, by shifting governance questions into the domain of

⁹³ ANDREA ANDRENELLI & JAVIER LÓPEZ GONZÁLEZ, *ELECTRONIC TRANSMISSIONS AND INTERNATIONAL TRADE - SHEDDING NEW LIGHT ON THE MORATORIUM DEBATE* 12 (2019) [hereinafter Andrenelli & González].

⁹⁴ World Trade Organization, *Telecommunications Services: Reference Paper*, WTO Doc. S/GBT/W/1/Rev.1 (Apr. 24, 1996).

⁹⁵ Agreement on Trade-Related Aspects of Intellectual Property Rights art. 10(1), Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (1994) [hereinafter TRIPS Agreement].

private intellectual property law. Notable, while many developed country jurisdictions such as the United States (US), United Kingdom, Japan and Australia had already commodified software and data as proprietary assets, TRIPS was the first framework to make such commodification a global mandatory standard.

Article 7 of the TRIPS Agreement provides that the protection and enforcement of IP rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge, and in a manner conducive to social and economic welfare. However, this promise of the multilateral IP regime has not been realised. For example, Article 66.2 of the TRIPS Agreement, which requires developed country Members of the WTO to provide incentives to enterprises and institutions in their territories to promote and encourage technology transfer to Least Developed Countries (LDCs) to enable them create a sound and viable technological base, has not been implemented, due to the absence of an enforcement mechanism for this obligation.⁹⁶ The consequence of the commodification of digital technologies as proprietary IP under Article 10, and the subsequent failure of the technology transfer mechanism under Article 66 of TRIPS, is the increasing concentration of the proprietary control of the global digital economy by global North firms. In turn, this reproduces the narratives of IP rights as the foundation of innovative economies in the 21st century, and of strong IP rights protections as necessary for participation in the digital economy, thereby insulating the digital economy against radical reforms to the WTO IP regime to promote technology transfer.

The shaping of technological ideologies and markets structures by digital trade rules is also evident in the role of the WTO plurilateral ITA, which eliminates tariffs on imports of ICT products. This tariff elimination has facilitated the vertical integration of ICT global value chains, which has reinforced the structure of global ICT production networks, characterised by an international division of labour in which developed countries are net exporters of ICT goods, while developing countries are net importers of ICT goods. This international division of labour then reinforces the logic of liberalisation of trade in ICTs: it promotes the diffusion of cheap ICT products to the developing countries that are technologically-deprived. The ITA and digital technologies therefore operate as an ideological circuit, in which technological arrangements legitimise digital trade liberalisation, while WTO law stabilises technological and market forms that reproduce narratives of efficiency and inevitability.

E. Economic, Legal, and Technological Reproduction of Digital Trade Liberalisation

⁹⁶ Opeyemi I. Kolawole, *The Problems with the Nature of the Obligation in Article 66.2 of TRIPS*, 28 J. WORLD INTELL. PROP. 762 (2025) [hereinafter Kolawole].

The discussions in Part III, Sub-Parts A to D above converge on a central insight: free trade theory, WTO law, and digital technologies form a mutually reinforcing ideological assemblage that reproduces trade liberalisation as a resilient policy paradigm, despite the prevalent ideology critiques of the Comparative Advantage Theory and the WTO trade liberalisation regime. First, Ricardian economic theory of free trade and technological narratives are mutually-reinforcing. Digitalisation is rationalised through concepts of technical efficiency, scale, and the inevitability of technological progress, concepts which mirror Ricardian claims that trade liberalisation maximises aggregate welfare of all countries in an open trade relationship. Since digital infrastructures enable rapid cross-border provision of services and data-intensive goods, trade liberalisation is reframed as a functional necessity of the digital economy, rather than a contestable, context-specific political choice that is based on each country's domestic political priorities, and economic and technological positioning within the global economy. This framing stabilises and reifies free trade theory against ideology critique, and also reproduces its policy paradigms by embedding it in the material operation of digital markets.

Second, WTO law juridifies and entrenches the claims of free trade theory and technical efficiency in its trade liberalisation regime. For example, the ITA frames tariff elimination as removing 'costly administrative burdens' and facilitating technology diffusion.⁹⁷ The GATS⁹⁸ Annex on 'Telecommunications'⁹⁹ and the Reference Paper on Regulatory principles¹⁰⁰ elevate the technological norms of interoperability and network efficiency into binding regulatory principles for WTO Members. This framework restricts the ability of Member States to create 'behind-the-border' regulations that act as trade barriers, thereby narrowing domestic policy space in favour of international competition. The e-Commerce Moratorium and the e-Commerce Agreement similarly naturalise duty-free electronic transmissions as the status quo policy choice, despite the fact that it is a policy choice that favours developed countries exporting digitally-delivered services, while denying developing countries tariff revenues.¹⁰¹ These four WTO trade rules narrow the domestic policy space of especially developing countries that are net importers of digital goods and services by converting trade liberalisation into a baseline condition of participation in the digital economy.

⁹⁷ WTO: 20 Years of ITA, *supra* note 92 at 9.

⁹⁸ GATS, *supra* note 40.

⁹⁹ Annex on Telecommunications to the General Agreement on Trade in Services, Apr. 15, 1994, 1869 U.N.T.S. 183, Annex 1B.

¹⁰⁰ Negotiating Group on Basic Telecommunications, *Reference Paper*, WTO Doc. S/GBT/W/1 (Apr. 24, 1996).

¹⁰¹ WTO, Ministerial Decision of Mar. 15, 2024 on Electronic Commerce: Moratorium, WTO Doc. WT/MIN(24)/36.

Third, the commodification of software and data under the TRIPS Agreement reshapes global digital markets and deepens power asymmetries between firms and also between countries.¹⁰² By creating and mandating the protection of IP rights in computer programs and compilations of data, WTO law transforms knowledge and data into proprietary assets, and essentially privatises the knowledge commons.¹⁰³ The expansion of IP rights results in the concentration of profits from innovation, and the creation of ‘intellectual monopolies’ which ultimately fosters economic inequalities especially between the global North and global South.¹⁰⁴ Despite Article 7 of the TRIPS Agreement requiring IP rights protections to promote technology transfer and dissemination, the Article 66.2 mechanism for facilitating this technology dissemination to LDCs has failed.¹⁰⁵ The result is a digital economy characterised by concentrated IP ownership, oligopolistic digital platform markets, and widening global North-South digital divides, which outcomes are at the core of critiques of free trade theory and the WTO trade liberalisation regime.¹⁰⁶

The impact of this tripartite ideological assemblage is the narrowing of trade policy reform imaginaries in multilateral and domestic trade fora. As digital markets consolidate around proprietary platforms and globally liberalised supply chains, calls for redistributive regulation, data localisation, or industrial policy are increasingly framed as radical, inefficient or technologically incoherent. Winner’s warning that artifacts “embody specific forms of power and authority” underscores how technical systems, once stabilised by law, can depoliticise governance choices.¹⁰⁷ Therefore, while the ideology critique of trade liberalisation highlights the widening economic and technological inequalities, power asymmetries, and regulatory deficits, the co-constitutive ideological force of free trade theory, WTO law, and digital technology renders fundamental reform of the WTO digital trade regime radical, impracticable, risky, or contrary to the “nature” of the digital economy.

IV. THE LIBERALISATION OF DIGITAL TRADE UNDER THE WTO AGREEMENTS

¹⁰² PAŠKO BILIĆ & PRUG TONI, THE POLITICAL ECONOMY OF DIGITAL MONOPOLIES: CONTRADICTIONS AND ALTERNATIVES TO DATA COMMODIFICATION (2021); SHOSHANA ZUBOFF, THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER (2019).

¹⁰³ CHRISTOPHER MAY, THE GLOBAL POLITICAL ECONOMY OF INTELLECTUAL PROPERTY RIGHTS: THE NEW ENCLOSURES (2010) [hereinafter May].

¹⁰⁴ Christopher Foster, *Intellectual Property Rights and Control in the Digital Economy: Examining the Expansion of M-Pesa*, 40(1) INFO. SOC’Y. 1 (2024).

¹⁰⁵ Kolawole, *supra* note 96.

¹⁰⁶ UNCTAD Report 2019, *supra* note 61.

¹⁰⁷ Langdon Winner, *Do Artifacts Have Politics?*, in COMPUTER ETHICS 177, 1 (2017).

Despite incremental liberalisation, WTO law remains structurally inadequate for governing digital trade. This is fundamentally because existing WTO agreements were not designed for the contemporary digital economy, characterised by cross-border data flows, data-driven production, digital platforms, or even block-chain and AI-enabled services.¹⁰⁸ In addition, the fragmented application of the GATT, GATS, TRIPS, and TBT to the contemporary digital economy produces legal uncertainty rather than coherent regulation.¹⁰⁹ Efforts to include digital trade negotiations in the Doha Round have been constrained by consensus paralysis, limiting the ability of WTO Members to update rules multilaterally.¹¹⁰

Consequently, the WTO (including individual Member States and the Dispute Settlement Body (DSB)) has incrementally applied free trade theory to digital trade through existing agreements negotiated prior to the emergence of the contemporary digital economy. Rather than a purpose-built digital trade regime, WTO Members and the DSB have relied on doctrinal extension, interpretive adaptation, and selective liberalisation through plurilateral agreements such as the ITA, and temporary Ministerial Declarations such as the e-Commerce Moratorium that are renewed at every Ministerial Conference. The liberalisation of digital trade has therefore proceeded through legal indeterminacy, which has privileged technologically advanced economies that have also historically applied the WTO's Dispute Settlement Mechanism to advance their legal and policy positions within the WTO regime, while constraining regulatory autonomy in developing countries.

The deadlock at the WTO has also prompted technologically-advanced States such as the US and the European Union (EU) to pursue substantive digital trade liberalisation through WTO-plus and WTO-extra digital trade provisions in PTAs.¹¹¹ The core trade liberalisation provisions in digital trade chapters of PTAs include (a) elimination of customs duties on digital products (making the WTO e-commerce moratorium permanent); (b) non-discrimination against digital products (extending MFN and National Treatment principles to digital products); (c) obligations guaranteeing free cross-border flow of data; (d) prohibition of data localisation

¹⁰⁸ Ines Willemyns, *Addressing Digital Services in PTAs: Only Convergence in the 11th Hour?*, in COHERENCE AND DIVERGENCE IN SERVICES TRADE LAW 117 (Rhea Tamara Hoffmann & Markus Krajewski eds., 2020); Mira Burri, *The Governance of Data and Data Flows in Trade Agreements: The Pitfalls of Legal Adaptation Symposium - Future-Proofing Law: From RDNA to Robots*, 51(1) U.C.D. L. REV. 65 (2017).

¹⁰⁹ MICHELE FINK, LEGAL ANALYSIS OF INTERNATIONAL TRADE LAW AND DIGITAL TRADE 6–9 (2020).

¹¹⁰ Manfred Elsig & Sebastian Klotz, *Digital Trade Rules in Preferential Trade Agreements: Is There a WTO Impact?*, 12(4) GLOBAL POLICY 25 (2021).

¹¹¹ *Id.*; BERNARD M HOEKMAN, XINQUAN TU & DONG WANG, REBOOTING MULTILATERAL TRADE COOPERATION: PERSPECTIVES FROM CHINA AND EUROPE (2021).

requirements as conditions for market access; (e) prohibition of mandatory disclosure of source code and algorithms.¹¹²

These PTAs function as laboratories for rule-making, allowing the powerful states to export regulatory preferences and economic interests to developing countries through legally binding commitments that have otherwise faced deadlocks in the WTO.¹¹³ For example, the United States has advanced a market-driven model of digital trade, premised on unrestricted data flows, strong protection of proprietary digital assets, and minimal regulatory intervention. US-led agreements such as the United States-Mexico-Canada Agreement (USMCA) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) embed this approach through binding obligations on cross-border data flows, prohibitions on data localisation, and bans on source-code disclosure.¹¹⁴ This model closely aligns with the interests of large US-based digital firms whose business models depend on global data mobility and economies of scale.¹¹⁵

In contrast, the EU has pursued a rights-based regulatory approach, anchored in data protection, privacy, and regulatory autonomy.¹¹⁶ While EU trade agreements increasingly include digital trade provisions, they typically condition data flows on compliance with domestic and EU-level data protection frameworks, particularly the General Data Protection Regulation (GDPR). The EU-Japan Economic Partnership Agreement, for example, liberalises digital trade while explicitly carving out data protection as a non-negotiable public interest.¹¹⁷ While this model foregrounds

¹¹² Mira Burri & Rodrigo Polanco, *Digital Trade Provisions in Preferential Trade Agreements: Introducing a New Dataset*, 23(1) J. INT'L ECON. L. 187 (2020); Mira Burri, *Digital Trade: New Design Elements in Preferential Trade Agreements*, in THE CONCEPT DESIGN OF A TWENTY-FIRST CENTURY PREFERENTIAL TRADE AGREEMENT: TRENDS AND FUTURE INNOVATIONS 146 (Kathleen Claussen, Manfred Elsig, & Rodrigo Polanco eds., 2025).

¹¹³ Meredith Kolsky Lewis, *International Trade Agreements: Laboratories of Innovation or Propellers of Fragmentation?*, 26(1) J. INT'L ECONOMIC L. 110, 116 (2023).

¹¹⁴ Henry Gao, *Digital or Trade? The Contrasting Approaches of China and US to Digital Trade*, 21(2) J. INT'L ECON. L. 297, 304 (2018) [hereinafter Gao].

¹¹⁵ SHAMEL AZMEH & CHRISTOPHER FOSTER, THE TPP AND THE DIGITAL TRADE AGENDA: DIGITAL INDUSTRIAL POLICY AND SILICON VALLEY'S INFLUENCE ON NEW TRADE AGREEMENTS (2016); Shamel Azmeh, Christopher Foster & Jaime Echavarri, *The International Trade Regime and the Quest for Free Digital Trade*, 22(4) INT'L STUD. REV. 671 (2020).

¹¹⁶ EUROPEAN COMMISSION, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS: TRADE POLICY REVIEW - AN OPEN, SUSTAINABLE AND ASSERTIVE TRADE POLICY 15 (2021).

¹¹⁷ Merit E. Janow & Petros C. Mavroidis, *Digital Trade, E-Commerce, the WTO and Regional Frameworks*, 18 WORLD TRADE REVIEW S1, s4 (2019).

social rights, it exports EU regulatory standards, raising concerns about asymmetric compliance burdens for developing countries.

On the other hand, China's approach reflects a state-centric model that integrates digital trade with national security and industrial policy objectives. Chinese-backed agreements have tended to adopt a narrower conception of digital trade, emphasising trade facilitation while retaining policy space for data governance, censorship, and domestic digital champions.¹¹⁸ This approach has challenged US-style digital free trade by reiterating current multilateral WTO commitments touching on digital trade, while resisting binding commitments on unrestricted data flows and source-code disclosure. These divergent governance models demonstrate how digital trade chapters in PTAs are ideologically-driven, reflecting competing visions of economic governance and state-market relations in the digital economy. PTAs have therefore become new sites of contestation and exercise of norm-making power over market access, regulatory authority, and the distribution of value in the digital economy.

As at 2025, 248 of the 489 preferential trade agreements signed since January 2000 contained provisions governing digital trade, while 149 of these agreements contained dedicated digital trade chapters.¹¹⁹ From a global perspective, the emergent digital trade governance landscape is complex, fragmented, and undermines the coherence of global trade governance. This fragmented governance landscape, together with the failure to achieve multilateral consensus under the WTO's 1998 Work Programme on Electronic Commerce, prompted a group of developed country WTO Members to launch the Joint Statement Initiative (JSI).¹²⁰ Initiated at the 2017 WTO Ministerial Conference in Buenos Aires and formally launched in 2019, the JSI represented a plurilateral rule-making process among a subset of WTO Members, culminating in the July 2024 publication of the stabilised text of an Agreement on Electronic Commerce. Prospects for the adoption of a purpose-built multilateral digital trade regime increased during the 14th WTO Ministerial Conference (MC14) on 28th March 2026, where 66 WTO Members, covering approximately 70% of global trade, adopted the stabilised text of the WTO Agreement on Electronic Commerce (e-Commerce Agreement) as a plurilateral agreement.¹²¹ The adopted 'Declaration on Interim Arrangements for the

¹¹⁸ Gao, *supra* note 114, at 311.

¹¹⁹ Mira Burri, *Digital Trade*, in THE CAMBRIDGE COMPANION TO WORLD TRADE LAW 433, 435 (C. L. Lim & Joel Trachtman eds., 2026).

¹²⁰ Dacio Castillo & Kholofelo Kugler, *The Joint Statement on Electronic Commerce: Are We There Yet?*, 19(4) GLOBAL TRADE AND CUSTOMS JOURNAL, 267 (2024).

¹²¹ World Trade Organization, *Incorporation of the Agreement on Electronic Commerce into Annex 4 of the WTO Agreement*, WTO Doc. WT/GC/W/955 (Dec. 5, 2024), as adopted by World

Agreement on Electronic Commerce' would provide a pathway to bring the e-Commerce Agreement into force, while WTO Members continued to work towards its incorporation into the WTO legal framework of rules.¹²²

This Part therefore discusses the four key WTO Agreements that explicitly govern aspects of the digital economy, as case studies of the ideological nature of WTO trade liberalisation commitments. They include the TRIPS Agreement, the ITA, the e-Commerce Moratorium, and the recently adopted WTO e-Commerce Agreement.

A. Trade Related Aspects of Intellectual Property Rights Agreement, 1994

Viewed through the co-constitutive free trade theory-WTO law-digital technology framework developed in Part III above, the TRIPS Agreement emerges not merely as a technical IP instrument, but as a central ideological and legal technology of digital trade liberalisation. TRIPS do not simply respond to pre-existing technological realities; rather, it actively constitutes the digital economy by legally encoding particular assumptions about knowledge, innovation, and exchange that resonate with, and reinforce, free trade ideology. At the level of ideological justification, TRIPS universalises a proprietary conception of knowledge that at liberalises global markets for innovators, while being in opposition with free trade rationalities by creating legal barriers to the use of knowledge an inexhaustible resource. The ideological technique is in the concealing of the latter effect of IP regimes.

The TRIPS Agreement universalises IP protections over intangible, knowledge-based goods that underpin the digital economy, including software, databases, and digital content, thereby constructing a global market for IP assets.¹²³ By mandating minimum standards of copyright, patent, and trade secret protection across WTO Members, TRIPS facilitates the commodification of knowledge and enables its cross-border exchange as a tradable asset.¹²⁴ This universalisation was justified, in the preamble to TRIPS, on the grounds that stronger and harmonised IP protections would reduce distortions and impediments to international trade and promote innovation-driven growth. Article 7 of the Agreement frames IP protection as contributing to “technological innovation” and “transfer and dissemination of technology ... conducive to social and economic welfare,” emphasising a “balance of rights and obligations”.¹²⁵

Trade Organization, Ministerial Declaration of Interim Arrangements for the Agreement on Electronic Commerce, WTO Doc. WT/MIN(26)/42 (Mar. 28, 2026).

¹²² *Id.*

¹²³ See TRIPS Agreement, *supra* note 95, arts. 9–14, 27.

¹²⁴ May, *supra* note 103, at 105.

¹²⁵ TRIPS Agreement, *supra* note 95, art. 7.

On its co-constitution with digital technology, TRIPS legally transforms non-rival, reproducible informational resources into scarce, tradable commodities. As discussed above, Article 10 of the TRIPS Agreement mandates the protection of “computer programs, whether in source or object code” and compilations of data that constitute intellectual creations, to be protected as literary works. In the contemporary digital economy, the effect of the Article 10 commodification of software and data is to commodify digital infrastructure as proprietary assets. The legal constitution of software and data into assets reinforces the ideologies of technical rationality and technological determinism. For example, governance of global digital markets is narrativised as a technical issue of compliance with, and respect for the proprietary rights of the IP owners, rather than a political choice about technological access, transfer, and diffusion, or even alternative models of innovation beyond IP rights. Consequently, digital technologies, whose operations increasingly depend on proprietary code, proprietary digital platforms, and proprietary technical standards, appear to require strong IP protections to function, while the TRIPS Agreement simultaneously shapes innovation in those technologies towards proprietary technological architectures.

By requiring that “computer programs, whether in source or object code, shall be protected as literary works” and that “compilations of data” be protected when they constitute intellectual creations, TRIPS renders core digital infrastructures proprietary.¹²⁶ This legal move reinforces ideologies of technological rationality and determinism: the governance of digital markets appears as a technical matter of IP compliance rather than a political choice about access, diffusion, or alternative innovation models. In this way, digital technologies, whose operation increasingly depends on proprietary code, platforms, and standards, appear to require strong IP protection, while TRIPS simultaneously shapes those technologies toward proprietary architectures.

Despite its preambular objectives of transfer and dissemination of technology, critical perspectives view TRIPS as entrenching asymmetrical power relations in global trade; it is a regime of “new enclosures” that transforms non-rival knowledge into artificially scarce property, disproportionately benefiting technology-exporting transnational corporations from the Global North, while constraining policy space and access to technology in developing countries.¹²⁷ A related critique is that it symbolises the global North’s structural power within the WTO: developing countries’ “consent” is argued to have been procured by the Uruguay Round’s

¹²⁶ *Id.* arts. 10(1) & 10(2).

¹²⁷ MAY, *supra* note 103, at 24–25; VITOR IDO, INTELLECTUAL PROPERTY AND ELECTRONIC COMMERCE: PROPOSALS IN THE WTO AND POLICY IMPLICATIONS FOR DEVELOPING COUNTRIES 5 (2019).

“single undertaking” and a “highly coercive dynamic” in which developing countries were pressed to accept TRIPS or face “exclusion from the WTO ... and the prospect of continued unilateral US sanctions”.¹²⁸

A third critique of TRIPS is couched in distributional terms: that unlike tariff reductions that are mutually beneficial for all WTO members, TRIPS “merely transfers income from developing to developed countries” by strengthening the ability of multinational corporations to charge higher prices in poorer countries.¹²⁹ The structure of the contemporary global digital economy legitimises these critiques. The commodification of software and data under Article 10 of TRIPS has facilitated surveillance capitalism and data colonialism, which are characterised by the global extraction and privatisation of personal data and other information resources, and the uneven capture of value in this global data value chain. This has reinforced the structural economic inequalities inherent in the global trade regime, and which have not been addressed in the articulation of Ricardian free trade theory.¹³⁰ In addition, the exclusionary logic of IP rights can impede technological diffusion and follow-on innovation. Mimler, for example, characterises IP in digital trade as “Janus-headed,” enabling markets while also potentially hampering them, since IP is “a mechanism developed in a pre-digital era” that does not transpose seamlessly to the digital era.¹³¹

Developing-country concerns around TRIPS are expressed in WTO deliberations as well. South Africa’s 2023 submissions to the WTO’s TRIPS Council argued that developing countries industrialise “in the context of an international IP regime that is more constraining than it was in the 19th century when today’s advanced economies were pursuing their industrialisation,” and urged TRIPS discussions on e-commerce that address “development concerns” and “access to technology”.¹³² Proposals to amend the TRIPS Agreement to address these developing country concerns include operationalising TRIPS flexibilities by re-centring interpretation on Articles 7 and 8. Article 7 outlines the TRIPS objectives as promotion of technological innovation, transfer and dissemination of technology to the mutual advantage of producers and users of technology, in a manner conducive to social and economic welfare, and to a balance of rights and obligations. Article 8 provides that Members may adopt measures “to promote the public interest ... in ... socio-

¹²⁸ Frank J. Garcia, *Consent, Oppression and Contemporary Trade Agreements*, in *CONSENT AND TRADE: TRADING FREELY IN A GLOBAL MARKET* 52, 104 (2018).

¹²⁹ Douglas A. Irwin, *The World Trading System: The WTO, Trade Disputes, and Regional Agreements*, in *FREE TRADE UNDER FIRE* 239, 251 (4th ed. 2015).

¹³⁰ Davis et al., *supra* note 50, at 52.

¹³¹ Marc D. Mimler, *Digital Trade and Intellectual Property*, in *RESEARCH HANDBOOK ON DIGITAL TRADE* 455, 455 (2023).

¹³² SOUTH AFRICA, *INTELLECTUAL PROPERTY AND THE 1998 WORK PROGRAM ON ELECTRONIC COMMERCE: OPERATIONALIZING TECHNOLOGY TRANSFER IN THE CONTEXT OF ARTICLES 7, 8, 40, AND 66.2 OF THE TRIPS AGREEMENT* 2 (2023).

economic and technological development,” and to address practices that “adversely affect the international transfer of technology”.¹³³

Another reform agenda targets the Article 66.2 provision for developed countries to promote and encourage technology transfer to least-developed countries. Cottier argues that Article 66.2 has “remained without substantial solutions and returns,” calling for new mechanisms to correct market failures.¹³⁴ Consequently, reform proposals have included the introduction of technology transfer financing mechanisms similar to Article 4.5 of the United Nations Framework Convention on Climate Change (UNFCCC).¹³⁵ In digital copyright governance, Brazil proposed that exceptions and limitations available offline should also apply online and “should not be constrained by technological protection measures”. Institutionally, WTO Members have also urged structured TRIPS Council work on e-commerce IP issues to develop “appropriate policy responses” for digital trade and development.

These reform proposals from developing countries have been criticised as too cautious. They aim at merely re-balancing the TRIPS agreement, rather than questioning its basic foundations: the role of IP rights in producing an artificial restriction that creates the scarcity problem, their subsequent role in allocating these ‘scarce’ resources through a complex web of private property controlled by intellectual property owners.¹³⁶ More fundamentally, addressing technology transfer issues will require reforms beyond TRIPS: the ability of developing countries to absorb the transferred technologies will require the creation of local infrastructure and the building of local capacities, aspects that depend on further reforms to other WTO agreements such as the Trade Related Investment Measures (TRIMS) Agreement, the Agreement on Subsidies and Counter-veiling Measures (SCM), the GATS and Agreement on Technical Barriers to Trade (TBT).¹³⁷ Some of these agreements are discussed below.

TRIPS exemplifies the mutually-reinforcing relationship between free trade theory, WTO law, and digital technologies as ideological practices. Digitalisation intensifies reliance on IP-intensive assets, which legitimises TRIPS’ proprietary logic. TRIPS,

¹³³ TRIPS Agreement, *supra* note 95, art. 8.

¹³⁴ Thomas Cottier, *Technology and the Law of International Trade Regulation*, in THE OXFORD HANDBOOK OF LAW, REGULATION AND TECHNOLOGY 1017, 23 (Roger Brownsword, Eloise Scotford, & Karen Yeung eds., 2017).

¹³⁵ SUE-RIE MOON, DOES TRIPS ART. 66.2 ENCOURAGE TECHNOLOGY TRANSFER TO LDCs? AN ANALYSIS OF COUNTRY SUBMISSIONS TO THE TRIPS COUNCIL (1999–2007) 8 (2008).

¹³⁶ Tony Ciro, *The Scarcity of Intellectual Property*, 10(1) J. INFO., L. & TECH. 21, 6 (2005).

¹³⁷ Carlos M. Correa, *Review of the TRIPS Agreement: Fostering the Transfer of Technology to Developing Countries*, 2(6) J. WORLD INTELL. PROP. 939, 956 (1999).

in turn, structures digital markets around exclusionary rights that deepen technological dependence and power asymmetries. Free trade ideology naturalises this settlement as efficient and inevitable. This ideological assemblage reproduces digital trade liberalisation as resilient trade policy orthodoxy, and narrows the scope for more radical reforms that would foreground technological access, diffusion, and democratic control over digital infrastructure.

B. Information Technology Agreement, 1996

The ITA is a plurilateral agreement concluded in 1996. It removes tariffs on a broad, defined list of ICT goods, including computers, semiconductors, telecommunications equipment, and software embodied in physical media.¹³⁸ The policy rationale underpinning the adoption of the ITA was economic development and efficiency: that the zero-rating of ICT imports would lower prices, promote technology diffusion in developing countries, integrate global value chains, and stimulate innovation and economic growth.¹³⁹ An ideology critique of the ITA frames it as a legal mechanism that embeds and reproduces free trade ideology within the material architecture of the digital economy. The zero-rating of ICT goods under the agreement facilitates the global circulation of hardware and software elements underpinning the global digital economy.

The ITA ideologically legitimates and operationalises Ricardian comparative advantage theory of free trade by presenting tariff elimination as a neutral mechanism through which countries engage in an international division of labour within ICT value chains, thereby assuming efficiency gains and aggregate welfare improvements. However, as echoed by critiques of free trade theory, such assumptions abstract from structural asymmetries in the productive capacities, technological capabilities, and power asymmetries between developed and developing countries.

Digital technology and the ITA also become mutually-reinforcing: the modularisation of ICT production and the emergence of globally fragmented value chains make tariff-free movement of components appear technologically necessary. At the same time, the ITA's legal commitments justify this technological necessity, thereby narrowing domestic policy space by removing tariffs as an industrial policy option, and embedding trade liberalisation as the default condition of digital industrialisation. This translates the ideology of technical rationality, expressed in the concepts of efficient global supply chains and just-in-time production, into legal necessity.

¹³⁸ World Trade Organization, Ministerial Declaration on Trade in Information Technology Products on Dec. 13, 1996, WT/MIN(96)(16), 36 I.L.M. 218 (1997) [hereinafter ITA].

¹³⁹ WTO: 20 Years of ITA, *supra* note 92.

However, under the ITA, the benefits of trade liberalisation in ICTs accrue disproportionately to economies already embedded in ICT production networks, while many developing countries experience limited industrial upgrading and heightened import dependence.¹⁴⁰ The ITA, for example, has decimated the technology sectors of developing countries such as India, whose domestic sectors were not yet strong enough to compete with technologically-dominant markets such as the US and China.¹⁴¹ The ITA's narrow focus on tariff elimination therefore depoliticises structural issues of capacity, innovation, and technological sovereignty, reinforcing the limitations of free trade theory in the digital economy.

The elimination of tariffs as a trade and industrial policy tool has curtailed developing countries' ability to protect infant digital industries and implement domestic digital industrial strategies.¹⁴² In parallel, the Agreement has resulted in export concentration and increased export market dominance by multinational corporations (MNCs) from technologically-advanced economies, as evident from trade statistics. 114 out of 126 countries are net importers of ITA-1 products and 106 countries are net importers of ITA-2 products, while over 80% of global ITA exports are accounted for by seven economies while the remaining 20 percent account for the majority of the net importers.¹⁴³

Empirical studies of India and China demonstrate sharply divergent outcomes in signing up to the ITA. While China leveraged the ITA to move from downstream assembly to higher-value intermediate and final ICT exports, India's experience shows limited manufacturing upgrading, constrained by premature tariff elimination, constrained industrial policy space, and dependence on imported components.¹⁴⁴ Similar findings emerge from Tunisia's feasibility assessment, which cautions that

¹⁴⁰ SOUTH CENTRE, THE INFORMATION TECHNOLOGY AGREEMENT (ITA): CONSIDERATIONS FROM A DEVELOPMENT PERSPECTIVE 18–20 (2013) [hereinafter South Centre].

¹⁴¹ DIETER ERNST, IS THE INFORMATION TECHNOLOGY AGREEMENT FACILITATING LATECOMER MANUFACTURING AND INNOVATION?: INDIA'S EXPERIENCE (2013) [hereinafter Ernst]; Dieter Ernst, *The Information Technology Agreement, Manufacturing, and Innovation - China's and India's Contrasting Experiences*, in 67 MEGAREGIONALISM 2.0: TRADE AND INNOVATION WITHIN GLOBAL NETWORKS 361 (Dieter Ernst & Michael G. Plummer eds., 2018).

¹⁴² RASHMI BANGA, IMPLICATIONS OF SIGNING INFORMATION TECHNOLOGY AGREEMENT (ITA-1) AND EXPANSION OF ITA (ITA-2), at 10–12 (2020), https://www.researchgate.net/publication/343064975_Implications_of_Signing_Information_Technology_Agreement_ITA-1_and_Expansion_of_ITA_ITA-2.

¹⁴³ *Id.* at 2.

¹⁴⁴ Ernst, *supra* note 141, at 12–18, 21–27.

tariff elimination alone does not generate industrial development absent complementary policies in skills, infrastructure, and innovation.¹⁴⁵

These outcomes reflect how the ITA has entrenched asymmetric integration into GVCs, locking many Global South economies into low-value segments while consolidating technological rents in advanced economies and lead firms. This supports the argument that the ITA has locked in pre-existing comparative advantages held by developed economies and East Asian industrial economies, while simultaneously locking in developing countries as consumers of ICT goods. It reflects a core critique of free trade theory: formal tariff neutrality masks structurally inequalities between technologically advanced and technologically weak economies.

One of the proposals for reforming the ITA is recalibrating the Agreement to better accommodate development objectives. This includes the embedding of Special and Differential Treatment (S&DT) provisions, including greater flexibility in implementation schedules, periodic review of product coverage impacts, and explicit recognition of policy space for latecomer industrialisation.¹⁴⁶ UNCTAD has also recommended coupling ITA participation with targeted trade, fiscal and industrial policies, innovation, and skills policies, arguing that that participation in the ITA should not merely be limited to becoming an attractive host for FDI and domestic direct investment in IT sectors.¹⁴⁷

Member State concerns, particularly from India and other developing economies, have also focused on asymmetries created by ITA expansion, especially where new-generation digital products are added without addressing non-tariff barriers, technology transfer, or local value addition. These critiques suggest that reform should move beyond tariff liberalisation toward a more balanced digital trade framework that acknowledges structural inequality - echoing broader critiques of free trade theory under the WTO regime.

However, these proposals largely seek to re-balance the ITA rather than question its foundational premise: that tariff-free trade in ICT goods is the appropriate legal response to the policy challenges of the digital economy, such as a widening digital divide, and increasing economic inequality. The ITA exemplifies how free trade theory, WTO law, and digital technologies are mutually-reinforcing, thereby stabilising digital trade liberalisation as policy orthodoxy. Digital production networks appear to require openness; WTO law codifies that openness; and the

¹⁴⁵ UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, TUNISIA: IMPLICATIONS OF PARTICIPATION IN THE INFORMATION TECHNOLOGY AGREEMENT OF THE WORLD TRADE ORGANIZATION 27–29 (2015) [hereinafter UNCTAD Tunisia Report].

¹⁴⁶ South Centre, *supra* note 140, at 15–18.

¹⁴⁷ UNCTAD Tunisia Report, *supra* note 145, at 29.

resulting market structures are then invoked as evidence that trade policy alternatives including infant-industry protection or more interventionist digital industrial strategies, are inefficient or obsolete. In this way, the ITA both reflects and reproduces the core limitations of free trade theory in the digital era.

C. WTO E-Commerce Moratorium 1998

Adopted in 1998, the WTO E-Commerce Moratorium liberalises digital trade by committing Members to the “current practice of not imposing customs duties on electronic transmissions,” thereby rendering digitally delivered goods and services effectively duty-free at the border.¹⁴⁸ This suspension has operated as a de facto liberalisation device by preventing the extension of tariff disciplines into the digital economy and facilitating the rapid expansion of cross-border data-enabled trade. The WTO and other proponents of the moratorium justify it on efficiency grounds, arguing that customs duties on electronic transmissions are technically unworkable and that the moratorium enhances productivity, innovation, and market access, particularly for MSMEs.¹⁴⁹

In terms of its co-constitutive relationship with digital technology, the moratorium draws legitimacy from narratives of technological rationality and determinism. WTO Secretariat materials, in addition to OECD and International Monetary Fund policy literature, frequently justify the moratorium on the grounds that customs duties on electronic transmissions are technically impracticable and economically inefficient, and that duty-free treatment of digital trade promotes innovation, productivity, and MSME participation in global markets.¹⁵⁰ These narratives translate technological affordances in digital markets, including technological speed, dematerialisation, and deterritorialisation of data, and cross-border data flows, into inevitable trade policy and legal commitments. They frame zero-rated digital trade as a functional requirement of the global digital economy, rather than a contestable domestic trade policy choice.

These technology narratives conceal the distributive effects of the moratorium. For example, digitalisation increasingly substitutes physical imports for electronic transmissions, thereby eroding tariff revenues that significantly contribute to the

¹⁴⁸ World Trade Organization, Ministerial Decision on the E-commerce Moratorium and Work Programme, WTO Doc. WT/MIN(22)/32 (Jun. 22, 2022).

¹⁴⁹ INTERNATIONAL CHAMBER OF COMMERCE, WTO PLURILATERAL NEGOTIATIONS ON TRADE-RELATED ASPECTS OF ELECTRONIC COMMERCE: THE BUSINESS CASE FOR A PERMANENT PROHIBITION ON CUSTOMS DUTIES ON ELECTRONIC TRANSMISSIONS (2021); HOSUK-LEE MAKIYAMA & BADRI NARAYANAN, THE ECONOMIC LOSSES FROM ENDING THE WTO MORATORIUM ON ELECTRONIC TRANSMISSIONS (2019).

¹⁵⁰ Andrenelli & González, *supra* note 93, at 15–18.

fiscal capacity of many developing countries. According to the United Nations Conference on Trade and Development (UNCTAD), the potential tariff revenue losses for developing countries exceed USD 10 billion annually.¹⁵¹ These tariff losses represent significant distributive effects in developing countries, which become even more fiscally weakened and unable to compensate the economic groups that face economic dislocation as a result of the e-Commerce Moratorium. In addition, these losses also represent the redistribution of value, and the consolidation of value capture by the ICT exporting firms that are especially headquartered in digitally-advanced economies.

The Moratorium therefore co-constitutes (with digital technologies) the structure of global digital markets, facilitating the concentration of market power in net-exporting countries, while limiting developing countries' ability to build domestic digital markets through import substitution industrialisation policies such as tariffs. This reinforces the structural dependence of developing countries on digitally advanced economies for technological imports, thereby constraining latecomer development strategies. In this context, the e-commerce moratorium demonstrates the same ideological effect as the TRIPS Agreement and the ITA: formal neutrality of the zero-rating of tariffs in the Moratorium conceals the substantive economic and technological inequalities and market power between developed and developing countries, and the uneven impact of tariff elimination on developing countries.

A further ideological dimension lies in legal indeterminacy. WTO law contains no agreed definition of "electronic transmissions," leaving unresolved whether the moratorium applies solely to the act of transmission ("bits and bytes") or also to the digital content transmitted. India and South Africa have emphasised that this ambiguity has profound distributional consequences, warning that an expansive interpretation would "reduce bound tariff rates on an entire class of digitised goods to zero by default".¹⁵² Such indeterminacy is not accidental: it allows liberalisation to proceed through practice and renewal without explicit political authorisation or renegotiation.

Reform proposals advanced by developing-country Members seek to re-politicise the moratorium. India and South Africa argue that the moratorium was never intended to be permanent and call for ending automatic renewal in favour of

¹⁵¹ RASHMI BANGA, GROWING TRADE IN ELECTRONIC TRANSMISSIONS: IMPLICATIONS FOR THE SOUTH (2019).

¹⁵² World Trade Organization, *The E-Commerce Moratorium and Implications for Developing Countries: Communication from India and South Africa*, WTO/GC/W/774 (Jun. 4, 2019) [hereinafter *Implications for Developing Countries*]; World Trade Organization, *The E-Commerce Moratorium: Scope and Impact - Communication from India and South Africa*, WT/GC/W/798 (Mar. 11, 2020).

evidence-based review.¹⁵³ Indonesia and others propose clarifying that the moratorium applies only to the transmission layer, not to digitised content, thereby restoring tariff autonomy over digitally delivered goods.¹⁵⁴ These proposals emphasise that reform would not mandate tariffs but would restore sovereign choice over whether, when, and how tariffs are used in development strategy.

A co-constitutive ideology critique lens frames the E-Commerce Moratorium as an example of legitimisation of trade liberalisation by digital technologies, its entrenchment through WTO law, and naturalisation through free trade theory. The result is a resilient liberalisation regime that exacerbates concerns over fiscal sovereignty, digital divides, and power asymmetries, while constraining the scope for meaningful reform of global digital trade governance.

D. WTO E-Commerce Agreement, 2026

The WTO e-Commerce Agreement, adopted at the 14th WTO Ministerial Conference (MC14) on 28 March 2026, is the first WTO instrument purpose-built to govern digital trade. The Agreement liberalises digital trade through binding plurilateral commitments across several domains: digital trade facilitation through electronic signatures and authentication, electronic contracts, electronic invoicing, paperless trading, single-window data exchange, and electronic payments (Articles 4–10); a permanent prohibition on customs duties on electronic transmissions, including the content of such transmissions (Article 11); openness commitments on government data and on access to and use of the internet (Articles 12–13); harmonised baselines for online consumer protection, personal data protection and cybersecurity (Articles 14–17); and market-based principles for telecommunications regulation (Article 21 and Annex).¹⁵⁵ The coverage adopted text is markedly different from the earlier negotiation drafts, which included the most contested provisions, including obligations guaranteeing free cross-border flow of data, prohibition of data localisation, and provisions barring mandatory disclosure of source code and algorithms. The provisions were only dropped from the negotiation drafts after the US declared its withdrawal of support to these specific provisions, after its domestic priorities on regulation of the digital economy changed.

¹⁵³ Implications for Developing Countries, *supra* note 152.

¹⁵⁴ Implications for Developing Countries, *supra* note 152.

¹⁵⁵ Agreement on Electronic Commerce, arts. 4–21, annexed to *Declaration on Interim Arrangements for the Agreement on Electronic Commerce*, WTO Doc. WT/MIN(26)/42 (Apr. 27, 2026) [hereinafter WTO e-Commerce Agreement]; Annex to *Declaration on Interim Arrangements for the Agreement on Electronic Commerce*, WTO Doc. WT/MIN(26)/42 (Apr. 27, 2026) (setting out the substantive disciplines summarised here).

The Agreement was adopted as a plurilateral agreement after the failure of the General Council to garner Member State consensus on its Annex 4 incorporation, due to objections from developing countries including India and South Africa. The WTO has promoted the Agreement with reference to an earlier OECD analysis estimating that implementation would “significantly increase current digital trade integration and openness, adding 52% to existing levels”, with potential increases of up to 150% for some Members.¹⁵⁶

While the Agreement is yet to be implemented as of May 2026, it has attracted at least three preliminary critiques. First, by inscribing in Article 11 a permanent prohibition on customs duties on electronic transmissions (now expressly extending to “the content of the transmission”), the Agreement converts what was previously a renewable Ministerial Decision (analysed in Sub-Part C above) into a treaty commitment alterable only by formal amendment under Article 32, subject only to a quinquennial review under Article 11.5.¹⁵⁷ What developing-country Members had contested as a temporary policy choice is thereby reified into binding plurilateral law. This is the most consequential ideological move of the Agreement: temporary becomes permanent, and political contestation is transmuted into legal obligation.

Second, the JSI process has been challenged as procedurally illegitimate, to the extent that it circumvented the WTO consensus principle by allowing a subset of Members to negotiate digital trade rules that, due to economic and political inequalities between countries, may eventually exert structural influence over the broader WTO Membership. Azmeh, for example, has characterised the resulting dilemma facing developing-country Members as one of being “damned if you join, damned if you don’t”.¹⁵⁸ The withholding of consent by India, South Africa and Turkey, who have been the most vocal critics of the JSI process, underscores the contestation of the Agreement.

Third, the silence of the adopted text on the contested digital trade governance issues also leaves a vacuum for power-plays by dominant trade partners in PTAs. Following

¹⁵⁶ ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, THE DIGITALISATION OF TRADE DOCUMENTS AND PROCESSES: GOING PAPERLESS TODAY, GOING PAPERLESS TOMORROW (2025).

¹⁵⁷ WTO e-Commerce Agreement, *supra* note 155, art. 11.1 (defining “electronic transmission” to include “the content of the transmission”), art. 11.3 (prohibition), art. 11.5 (review in fifth year and periodically thereafter), art. 32 (amendment).

¹⁵⁸ Shamel Azmeh, *Developing Countries and Joint Statement Initiatives at the WTO: Damned If You Join, Damned If You Don’t?*, 55(3) DEVELOPMENT & CHANGE 375 (2024).

the United States' October 2023 withdrawal of support,¹⁵⁹ the proposed binding commitments on cross-border data flows, prohibitions on data localisation, and bans on source-code disclosure were dropped from the stabilised text. By deferring data governance to the Article 35.2 review mechanism while binding Members to digital trade facilitation, the Agreement consolidates the digital trade liberalisation infrastructure while leaving its most extractive feature largely unregulated, and amenable to regulation in WTO-extra PTAs.¹⁶⁰ Fourth, the Agreement's article 20's development provisions improve on traditional S&DT provisions by allowing least developed country and developing country self-designation of implementation periods of up to seven years, but rely on hortatory language ("shall endeavour", "may", "encouraged") in respect of Parties' obligations to provide assistance and support, thereby reproducing the indeterminacy already critiqued in respect of TRIPS Article 66.2.¹⁶¹

V. CONCLUSION

This article addresses the extent to which the long-standing ideology critiques of free trade theory and practice are exacerbated in the context of the emergent digital economy, and how the continued resilience of trade liberalisation under the WTO can be explained despite these challenges. Noting the resilience of David Ricardo's Comparative Advantage theory as the prevailing intellectual bedrock of the contemporary multilateral trade regime, despite its contestation, this paper argues that the resilience and reproduction of trade liberalisation as a trade policy paradigm in the digital era cannot be understood or explained purely in economic terms. The resilience of trade liberalisation should be analysed through the framework of ideology critique that articulates the co-constitutive, mutually-reinforcing ideological roles of free trade theory, international trade law, and digital technologies in reproducing trade liberalisation as the only rational trade policy paradigm.

The article develops this argument by adopting ideology critique of free trade theory, WTO law and digital technologies, as developed by Critical Legal Studies, Third World Approaches to International Law scholarship, and science and technology studies. It explores how the ideologies of free trade, trade liberalisation law, and technological rationality and determinism are co-constitutive and mutually-reinforcing, and are used to maintain domination in the international trade regime, through the processes of universalisation, reification, naturalisation, rationalisation, and narrativisation. The consequence of this ideological assemblage is the resilience

¹⁵⁹Office of the U.S. Trade Representative, *USTR Statement on WTO E-Commerce Negotiations* (Oct. 24, 2023), <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2023/october/ustr-statement-wto-e-commerce-negotiations>.

¹⁶⁰ WTO e-Commerce Agreement, *supra* note 155, art. 35.2.

¹⁶¹ WTO e-Commerce Agreement, *supra* note 155, art. 20.11.

of the WTO's trade liberalisation regime against the historical ideology critiques of free trade. These critiques include faulty economic assumptions (of balanced trade, full employment, immobility of factors of production, perfect competition and parity in market exchange) underlying Ricardian Comparative Advantage theory, increasing distributional inequalities (rather than higher aggregate welfare), changing dynamics of international trade (marked by factor mobility, emergence of powerful TNCs, GVCs and GPNs).

The paper develops this thesis by examining the impact of this ideological assemblage on the contemporary critiques of four WTO agreements that underpin the contemporary global digital economy, and which have been contested by developing countries: the TRIPS, the ITA, the 1998 e-Commerce Moratorium, and the 2026 e-Commerce Agreement. The analysis of these four agreements demonstrates their dual roles in the digital trade era. On the one hand, the WTO agreements respond to the ideological demands of free trade theory and the affordances of borderless, de-territorialised digital technologies by committing WTO Members to binding commitments on liberalising digital trade.

On the other hand, these agreements play an active, constitutive role in shaping digital markets and constituting digital technologies in ways that entrench and make digital trade liberalisation possible. For example, the TRIPS Agreement commodifies software and data into tradeable, proprietary intellectual property, transforming non-rival knowledge commons into private property, and then universalises their protection and enforcement, thereby constructing a global market for intellectual property assets. The effect is the reinforcing of technological dependence between the global North and global South, and market concentration in global North firms. The ITA, on the other hand, zero-rates the global trade in ICT goods, which form the hardware and software infrastructure of the global digital economy. By embedding tariff-free trade into the material architecture of global production networks, it narrows developing countries' digital industrial policy space, and locks in the pre-existing comparative advantages of net ICT exporters in global value chains, thereby constructing an international division of labour according to Ricardian free trade theory. The e-Commerce Moratorium also constructs a global market in digital trade by naturalising duty-free digital trade through the ban on customs duties on electronic transmissions. Lastly, the e-Commerce Agreement entrenches a permanent prohibition on customs duties on electronic transmissions, converting a previously renewable, temporary policy choice into a treaty commitment.

The ideologies of free trade theory and technical rationality legitimise and rationalise these three trade agreements as efficient, wealth-maximising policy paradigms rather than contested political choices, while masking their distributive impacts, which echo the traditional critiques of trade liberalisation. The contemporary liberalised

digital economy has been characterised by increasing inequality between firms and countries, increasingly uncompetitive digital markets controlled by oligopolies, a widening digital divide between the global North and global South, and the inequitable value capture between firms in developed and developing countries.

The contradictions masked by these three ideologies are evident. The features of the emergent global digital economy further destabilise the assumptions underpinning Ricardian free trade theory such as balanced trade, full employment, immobility of factors of production, perfect competition and parity in market exchange. On the other hand, the global digital economy underpinned by borderless and de-territorialised digital technologies, also generates material and ideological effects that entrench Ricardian free trade theory as the dominant intellectual foundation of the multilateral trade regime. The resilience of the ideology of free trade theory in this contested political economy is explained by the co-constitutive, mutually reinforcing roles of WTO law and digital markets and technologies. Free trade theory legitimises trade liberalisation through the promise of efficiency, mutual gains, and aggregate welfare. WTO law legitimises the claims of free trade theory by entrenching them into legal commitments rationalised by the ideological nature of international law as apolitical and rational. Digital technologies also legitimise digital trade liberalisation by supplying the material infrastructure and ideological narratives of technical rationality and technical efficiency, which frame trade liberalisation as technically necessary.

The article therefore demonstrates that the successful ideology critique of trade liberalisation in the digital trade era, and successful reform of the multilateral trade regime, requires a deconstruction of this ideological assemblage. This entails exposing the contingency, contradictions, politics and power relations embedded in the mutually-reinforcing claims of free trade theory, WTO law, and digital technologies, to highlight possibilities of alternative imaginaries of the global digital economy, anchored on equitable development and democratic control of digital futures.