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**E-COMMERCE:
TRANSFORMING
GLOBAL
CAPITALISM**

E-commerce is the true centrepiece of TiSA. The technology industry calls it the trade highway of the 21st century, and likens its transformative potential to the printing press in the 16th century and electricity in the 19th century. There are currently very few restrictions that govern the Internet. The powerful élite of private software, Internet, hardware, financial, logistics and infrastructure companies that dominate the digital domain want that to continue. TiSA offers them the tantalising prospect of largely unfettered authority over the global network economy, with governments promising never to regulate new technologies, services and practices that emerge in the future. Most important for them is the guarantee of unrestricted information and finance flows across borders and the rights to hold data anywhere in the world (especially the US, with minimal privacy rules) and to keep secret their source codes, whether for smart products or search engines themselves. Before considering the TiSA texts, it is important to understand the big picture which it is designed to serve. Appendix 4 provides a more detailed analysis of the TiSA text, especially the proposed Annex on Electronic Commerce.

Empowering GAFA

The powerhouses of e-commerce are principally American. The world's five largest companies by market capitalisation ten years ago were Microsoft, Exxon Mobil, General Electric, Citigroup, and Shell Oil. Now they are Alphabet (parent company of Google), Apple, Facebook and Amazon, known colloquially as GAFA, plus Microsoft.¹ According to *Forbes* magazine, 14 of the world's 25 largest tech companies in 2015 were from the US, including 7 of the top 10: Apple, Microsoft, Alphabet (the holding company for Google), Intel, IBM, Cisco Systems and Oracle.² Only South Korea's Samsung made the top five. The world's top three Internet companies Amazon (e-commerce), Google (search engine), and Facebook (social media) were also American, although the next three largest were from China: Tencent (social media), Alibaba (e-commerce) and Baidu (search engine).

The industry is itself subject to 'creative destruction'. As digital platforms like Facebook and Twitter rose, other names like MySpace, Napster, AOL and most recently Yahoo³ have disappeared. But the market remains highly oligopolistic in 2017: 'Google has an 88 percent market share in search advertising, Facebook (and its subsidiaries Instagram, WhatsApp and Messenger) owned 77 percent of mobile social traffic and Amazon has a 74 percent share in the e-book market'.⁴

Speaking to the pro-corporate Lisbon Council for Economic Competitiveness and Social Renewal in 2013, the CEO and President of IBM Ginni Rometty hailed the potential for the US and EU to 'lead the world' in making these new rules:

As the most advanced and information-intensive societies in the world, we are in the best position to define the rules of the road necessary to protect the world's vital governmental, environmental and societal interest, while unleashing maximum, long-lasting innovation and growth.⁵

While digital technology offers new opportunities and advances, the path of continuous disruption and 'creative destruction' which the tech industry celebrates means a heightened risk of economic and political instability, insecurity and dependency for others. Businesses, people, communities and

1 Jonathan Taplin, 'Is it time to break up Google?', *New York Times*, 22 April 2017

2 <http://www.forbes.com/sites/samanthasharf/2016/05/26/the-worlds-largest-tech-companies-2016-apple-bests-samsung-microsoft-and-alphabet/#7a08462f89ee>

3 'The identity crisis that led to Yahoo's demise', *Reuter*, 26 July 2016, <http://www.reuters.com/article/us-yahoo-m-a-missteps-analysis-idUSKCN1060DN>

4 Taplin, 'Is it time to break up Google?'

5 Ginni Rometty, 'Competitive Advantage in an Era of Innovation', Lisbon Council address, 12 July 2013,

governments are already hooked on Internet search engines, digital platforms, websites, apps and social media as the main channels for communication. As their dependency deepens, a single event - an Internet Service Provider (ISP) outage,⁶ faulty software or technical maintenance,⁷ hacking or installing malware- could bring banking and payment systems, an airline, large parts of the global supply chain, or a city's whole infrastructure to a halt.⁸ There are ominous new safety and security risks already associated with drones and driverless vehicles. These risks can only intensify as new forms of artificial intelligence and as-yet-unimaginable technologies are developed.

The tech industry's demand for flexibility redefines protections for workers and unionisation as 'barriers to trade'. Precarious work becomes the norm. In the same speech, Rometty said:

It is clear that overly strict employment laws and labor market rigidities will inhibit businesses' governments' and cities' ability to remain at the forefront of learning and expertise. This is particularly true in the technology sector... The general principle should not be to protect incumbency ... but to foster maximum opportunity.⁹

Workers, as consumers and citizens, face added threats to human rights and democratic government. TiSA's rules would entrench the power of GAFA who control the platforms, search engines and supply chains that are driving 21st century capitalism. The Big Data they hold is immensely valuable, financially and strategically: it can earn them vast sums from advertising; be sold to private interests for commercial or personal purposes; used to analyse and influence social trends and shape public opinion by manipulating the information individuals see; and abused by the state to invade privacy, conduct surveillance or cause actual harm to individuals, businesses and other governments.

The tech industry's main priority for TiSA is to cement its power to control that data and prohibit what it cleverly brands as 'data protectionism'. IBM's Rometty cited the proposed European Data Protection Regulation on free movement and use of data (adopted in April 2016) as the kind of 'excessive restriction' that would stifle innovation and competitiveness and be 'counter-productive if protecting one group's privacy would end up making entire markets uncompetitive, unable to access and capture value from this vast new natural resource' [meaning data].

Paradoxically, the private tech-operators are happy to rely on the public telecommunications, finance and postal delivery infrastructure provided by the state in many countries. TiSA would guarantee their access to quality infrastructure at minimum cost, while restricting the state's regulatory interventions and squeezing the public sector, especially monopolies and state-owned enterprises.

The geo-politics of e-commerce

E-commerce will deliver benefits, especially to consumers who have come to expect instant gratification. But claims that it will increase participation of countries, small businesses and marginalised communities from the global South is an illusion. The World Bank's World Development Report for 2016 promised *Digital Dividends*.¹⁰ But even that report recognised that few developing countries and communities currently have access to the necessary skills, infrastructure, technology and services to participate in cross-border, or even national, e-commerce. Far from building a new inclusive global economy, countries and sectors of society on the wrong side of the digital divide risk becoming even more excluded once cross-border digital trading becomes the new norm, and confined to low value local trading.

As this chapter shows, US firms have dominated the tech industry and rule-making institutions for decades. But the geography of e-commerce is changing rapidly. The massive shift in economic power means Chinese corporations now rival or surpass the US in e-retailing and telecommunications. China is the invisible elephant in the room of the TiSA negotiations. The Anglo-American rhetoric treats trade

6 http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11811188

7 'British Airways counts cost of outage disruption,' *Financial Times*, 28m May 2017, <https://www.ft.com/content/36f5f2dc-43af-11e7-8d27-59b4dd6296b8>

8 Adrian Gonzalez, 'The Day a Cyber Attack Brings the World's Supply Chains to a Halt', 8 September 2016

9 Rometty, 'Competitive Advantage in an Era of Innovation'

10 World Bank, *World Development Report 2016: Digital Dividends*, World Bank Group, 2016

in services agreements as a means to force China to give other countries' firms non-discriminatory access to its markets and to change its domestic laws and practices. China was the real target of many rules in the TPP, especially the US-driven chapters on e-commerce and SOEs, which were both largely transposed to TiSA. The US has blocked China's participation in both negotiations.

China's approach to cross-border e-commerce reflects its priority to serve a growing middle class, so as to enhance its internal economic, social and political stability, and the 'digital Silk Road' component of its One Belt, One Road strategy to re-establish its historical trade routes.¹¹ China's ideal global rules for e-commerce are different from those proposed for TiSA. The best indication of China's position is a paper tabled in the WTO in late 2016 in response to proposals to negotiate e-commerce.¹² China argued for a gradual approach within the existing mandate of the working group set up in 1998 to discuss the issue. It cited the G20 Business (B20) proposals from 2016 for a World e-Trade Platform, sponsored by Alibaba's Jack Ma as a possible pathway that embodied 'the spirit of solidarity' that can benefit developing countries and their small and medium enterprises (SMEs). To avoid polarisation, WTO members should give priority to 'easy issues' of promotion and facilitation of cross-border trade in goods and support services like payment and logistics services.

China's position poses an interesting challenge if TiSA concludes with a chapter along the lines currently proposed. Chinese firms like Alibaba that operate in TiSA countries would be governed by and benefit from TiSA's rules. Should the plan to insert TiSA into the WTO succeed, China would be confronted with rules it had no part in negotiating and which do not reflect its commercial or regulatory practices. Because of this, some TiSA countries have rejected some extreme US demands in TiSA, especially on SOEs.

Who controls global e-commerce

There is no reliable data on the quantity and value of cross-border e-commerce. Transactions are often private in nature and fractured across a chain of services and suppliers. Services now form a major part of goods, including software, and maintenance contracts. Because definitions of e-commerce vary, it has become extremely difficult to identify the implications of services commitments in TiSA schedules: sometimes services are classified under communications, computer or information, or by the substantive content of the service or good.

There is some substantive information on *retail* e-commerce that clearly shows the dominance of companies from the US, China and EU, and of certain markets.¹³ For example, a study of five large countries, commissioned from Neilson by online payment firm PayPal, estimated that US firms sold to 45% of the online shoppers in five countries surveyed in 2013.¹⁴ However, the rapid pace of change means statistics can only be treated as indicative.

UNCTAD data for 2014 in Table 4.1 shows there is no uniform commercial model. E-commerce was the core business of three of the largest e-retailers: Amazon (US), Alibaba (China) and Cnova (Netherlands). Although e-retail was only a small part of Walmart's revenue, Walmart is so huge that it still ranked as the 3rd largest by revenue. The proportion of *cross-border* transactions of a firm's total e-retail sales also varied widely. Chinese firms had largely focused on their massive domestic market, with the world's 2nd largest retailer JD.com and 5th largest Alibaba in 2014 selling almost exclusively within the country. By 2016 Alibaba had taken over from Walmart as the world's largest retailer.¹⁵

11 'One Belt, One Road (OBOR): China's Regional Integration Initiative', Briefing to the European Parliament, July 2016

12 General Council, 'Work Programme on Electronic Commerce. Aiming at the 11th Ministerial Conference. Communication from the People's Republic of China and Pakistan', JOB/GC/110/Rev.1, 16 November 2016

13 UNCTAD, *In Search of Cross-Border E-commerce Trade Data*, Geneva, 2016, p.13

14 UNCTAD, 2016, p.16

15 'Alibaba passes Walmart as the world's largest retailer', *RT News*, 6 April 2016, <https://www.rt.com/business/338621-alibaba-overtakes-walmart-volume/>

Table 4.1 Top ten companies by retail e-commerce revenue, 2014¹⁶

		Fiscal year end	Total retail e-commerce revenue		International retail e-commerce revenue		Gross merchandise value (US\$m)	
			US\$m	% of total sales	US\$m	% total e-commerce sales		
1	Amazon (US)	Dec. 2104	83,391	94%	33,307	40%	83,391	E-commerce revenue includes "media" & "electronics & other merchandise". International sales are from international websites. It includes export sales from these sites but not from North American sites.
2.	JD.com Inc (China)	Dec. 2014	18,535	100%	<1%	<1%	41,937	
3.	Walmart (US)	Jan. 2015	12,200	3%	3,440	28%	12,200	International estimated on basis of contribution to overall revenue.
4.	Apple (US)	Sep. 2014	10,200	6%	6,355	62%	10,200	iTunes Store only. International estimated on basis of contribution to overall revenue.
5.	Alibaba (China)	Mar. 2015	9,921	81%	285	3%	394,257	
6.	eBay (US)	Dec. 2014	8,817	49%	4,633	53%	82,954	E-commerce revenue refers to "Marketplaces". International estimated on basis of contribution to overall revenue.
7.	Otto Group (Germany)	Feb. 2015	8,622	54%	3,051	35%	8,622	
8.	Cnova (Neth.)	Dec. 2014	4,619	100%	2,499	54%	6,005	
9.	Best Buy (US)	Jan. 2015	3,533	9%	...	11%	3,533	International estimated on basis of contribution to overall revenue. Figure only provided for domestic online revenue.
10.	Rakuten (Japan)	Dec. 2014	3,431	61%	468	14%	22,141	E-commerce revenue refers to "Internet services".
TOTAL			163,269	19%	54,038	33%	665,240	

Note: Excluding companies principally involved in the food industry. Source: Adapted from company reports. Source: UNCTAD, 2016, Table 3.2, pp.12-13

Predictions for growth in cross-border e-retail also vary. The Nielson research study for PayPal projected a 100% growth in the value of cross-border products bought by US customers between 2013 and 2018, 546% in Brazil and 547% in China.¹⁷ However, the UNCTAD questioned whether *cross-border* e-commerce will grow at projected rates. It noted that many firms are setting up online subsidiaries inside countries because transactions tend to be easier and cheaper, and local firms are likely to go online to compete with foreign suppliers. UNCTAD concluded that cross-border demand is unlikely to grow significantly outside niche products, and in mainly developing countries that lack a well-developed domestic online market, although those countries also lack purchasing power, Internet penetration and sophisticated logistics.¹⁸

16 UNCTAD, 2016, Table 3.2, p.12

17 PayPal, 'Modern Spice Routes. The cultural impact and economic opportunity of cross-border shopping', https://www.paypalobjects.com/webstatic/en_TW/mktg/pdf/PayPal-ModernSpiceRoutes_6markets_Eng.pdf

18 UNCTAD, 2016, p. 23

The new 'Wild West'

TISA is being designed to meet the needs of the industry for decades ahead. Digital technology has already transformed the logistics, supply chains and distribution industries, allowing tech firms that deliver a service in-country to run their platforms and algorithms from anywhere in the world. TISA's emphasis on *cross-border* supply of services, prohibiting requirements for local presence and data storage, protecting source codes, recognising electronic payment services and electronic signatures, and applying scheduled commitments whatever technology is used to deliver them are all designed to facilitate this. The following snapshot of three dominant models shows what is at stake for UNI.

The Uber model

Uber, Lyft, Airbnb, Deliveroo and TaskRabbit, all created over the past decade, are tech companies that run electronic marketplaces. They manage algorithms that connect multiple participants in individualised transactions. Their expansion has been breathtaking: by the end of 2016 Deliveroo operated in 84 cities in 12 countries; Uber in over 60 countries and 400 cities; Airbnb had listings in 190 countries. They may or may not have a local commercial presence, and are structured to avoid tax through complex corporate arrangements.¹⁹

Historically, foreign investment by transnational corporations attracts opposition as a threat to local businesses and jobs. By contrast, digital services platforms have been hugely popular with consumers attracted by choice, cost, speed and convenience. For a while, this excitement drowned out a growing raft of concerns, but the downsides are now becoming more widely recognised:

- These companies are nominally worth billions of dollars and seen as attractive investments. In May 2016, Saudi Arabia's sovereign wealth fund invested \$3.5 billion in Uber.²⁰ But their assets are largely intangible and their value is speculative. There are risks of implosion, similar to the bursting of the dotcom bubble in 2001, which impacted directly on firms and workers and had a broader recessionary effect on economies.
- Cut-throat competition using temporarily low charges (loss leading) is used to kill off local competitors, after which the prices rise.²¹
- Uber's massive revenue is matched by massive losses, with predictions it will need to greatly increase charges and cut costs, especially for labour, to become a profitable business.²²
- Consumer complaints of price surges, safety risks and lack of quality assurance are met by a lack of accountability.²³

There is no question that digital marketplaces like Uber have fundamentally changed consumer expectations and commercial practices in business to consumer (B-2-C) services. Their strategy does not always succeed. The model assumes that consumers are driven by price and convenience. In countries like China, large incumbents enjoy cultural, language and nationalistic advantages, assisted directly or indirectly by government policy and regulation.²⁴ Uber retains an army of lawyers and lobbyists to develop legal strategies and operational tactics to avoid regulation; it even installed fake apps to detect and thwart undercover regulators collecting evidence of unlawful activities.²⁵ Nevertheless, governments in various countries are clamping down on avoidance of payroll and income taxes and other fees, and other forms of unfair competition with the regulated providers of

19 Brian O'Keefe, 'How Uber plays the tax shell game', *Fortune Magazine*, 22 October 2015, <http://fortune.com/2015/10/22/uber-tax-shell/>

20 Heather Somerville, 'Uber raises \$3.5 billion from Saudi Arabia's sovereign wealth fund', *Reuters*, 2 June 2016, <http://www.reuters.com/article/us-uber-saudi-idUSKCN0YN5UY>

21 Brian Solomon, 'Uber sued for predatory pricing by San Francisco taxi company', *Forbes Magazine*, 2 November 2016, <https://www.forbes.com/sites/briansolomon/2016/11/02/uber-sued-flywheel-predatory-pricing-by-san-francisco-taxi-antitrust/#3e3956cf4fca>

22 'Uber's 2016 losses to top \$3bn according to leaked financials', *Wired*, 20 December 2016, <http://www.wired.co.uk/article/uber-finance-losses-driverless-cars>; 'Uber would need to quadruple fares to become profitable, expert claims', *NZ Herald*, 3 December 2016, http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11759318

23 'Uber is trying to make you forget that surge pricing exists', *The Verge*, 23 June 2016, <http://www.theverge.com/2016/6/23/12017002/uber-surge-pricing-upfront-fare-app-update-announcement>

24 <http://www.businessinsider.com.au/why-uber-failed-in-china-2016-8?r=US&IR=T>

25 'Uber uses secret tool to deceive authorities', *NZ Herald*, 6 March 2017

an equivalent service. Court challenges and tighter regulation in numerous countries have forced Uber to shut down, remove non-compliant vehicles (eg self-driving cars in San Francisco²⁶) or comply with local requirements.²⁷

The Amazon model

Amazon is a more orthodox on-line retailer whose competitive advantage is delivery time. Its consumers are prepared to pay a premium for an individualised service that provides near-instant gratification. A broad range of services use the same template: Amazon Prime Now (special fast delivery for members), Amazon Prime Fresh (grocery delivery), Amazon Restaurants (home restaurant delivery), Amazon Prime Pantry (selected packaged goods), Amazon Dash Button (replenish frequently ordered items), Amazon Flex (crowd sourcing last mile delivery), to name a few. As a cross-border supplier of products, it stands to benefit from the expanded privileges and protections from regulation in the TiSA core text and country schedules, and the annexes ranging from finance and e-commerce to delivery and transportation.

Amazon exercises different levels of direct control over the main segments of its operations: the procurement of the products, the on-line purchasing process, and fulfilment once the order is placed. The last is especially important for UNI.²⁸ Distribution and last mile delivery use a mix of logistics arrangements, ranging from long-standing relationships and in-house operations to outsourcing and experiments with new technology, such as drones and driverless vehicles. Like Uber, the Amazon model is software dependent. Algorithms work out the availability of the product from the inventory, service requirements, and the transport cost of each individual order. Cloud-based software coordinates the orders and schedules the trucks and deliveries. Technology enables Amazon to cut transaction costs massively through reduced inventory, sharing storage with manufacturers, and above all lower labour costs.

Recently, Amazon has been seeking to reduce logistics costs while enhancing speed and reliability. That means taking greater control of the supply chain itself, rather than trying to negotiate lower rates with big carriers. In a major development, Amazon opted to buy aircraft and lease crew to airfreight in the US, while chartering aircraft for its Europe operations. In the US, Amazon also bought thousands of uniform trailers to give it more control over delivery from hubs to spokes, although it still contracted out its road haulage.

Direct shipping from suppliers is now bypassing brick-and-mortar stores and warehouses. For example, Amazon operates out of Proctor and Gamble warehouse and distribution centres, which allows it to ship direct from the factory. It is also adding to its 173 logistics facilities worldwide, and growing the network of highly automated sorting centres by acquiring new ones closer to customers to facilitate last-mile delivery. Ironically, Amazon prefers the US Postal Service over Fedex for package delivery because it costs less and the postal service has obligations to provide delivery services everywhere. Otherwise, last mile delivery is subcontracted to small companies and owner-operators. Because notionally independent contractors depend on Amazon for repeat business, the company has greater bargaining power than in negotiating contracts with big operators like UPS and can arbitrarily pay lower rates.

Despite ranking as the world's largest e-retailer back in 2014,²⁹ Amazon had difficulties gaining much market share in large countries outside the US and Europe. Other large markets like China were dominated by Alibaba and JD.com. More recently, Amazon reportedly spent USD5 billion to capture market share in India, which still strongly regulates its distribution services and proposes new data regulation.³⁰ Amazon's planned expansion of membership-based services in Australia in late

26 'Uber CEO seen on video arguing with driver over fares', *NZ Herald*, 1 March 2017

27 <http://www.ft.com/fastft/2016/07/13/tough-new-laws-force-uber-out-of-hungary/>; <http://www.wsj.com/articles/french-court-convicts-uber-of-violating-transport-privacy-laws-1465477861>; <http://www.stuff.co.nz/business/industries/82971276/uber-could-be-banned-if-it-doesnt-comply-with-the-law-transport-minister>; <http://www.whosdrivingyou.org/blog/us-cities-stood-up-regulate-uber>

28 Kathrin Birner, 'One click to empowerment? Opportunities and challenges for labour in the global value chain of e-commerce', 7(1-2), *International Journal of Labour Research*, 2015, 55-74.

29 UNCTAD, *In Search of Cross-Border E-commerce Trade Data*, Table 3.2, p.12

30 'Amazon invests USD 5 bln to be top ecommerce provider in India', *Wall Street Journal*, 7 June 2016, <https://www.wsj.com/articles/amazon-plans-3-billion-india-investment-1465355857>; 'Will have regulatory regime on data protection: Government to Supreme Court', *The Economic Times*, 27 April 2017, <http://economictimes.indiatimes.com/news/politics-and-nation/will-have-regulatory-regime-on-data-protection-government-to-supreme-court/printarticle/58401023.cms>

2017 (which will also service New Zealand) sparked predictions of massive disruption to the retail sector, including loss of jobs through automated filling and delivery systems.³¹ The boss of major retailer Harvey Norman called Amazon a 'parasite' that 'just want to pay everyone minimum wages', 'contributes virtually nothing to society', and engages in predatory pricing to 'send everyone broke, then put up the price'.³²

AliBaba

The Uber and Amazon models of e-commerce are transactional, relying on aggressive cost-cutting and ease of operation, rather than building long-term business relationships. They face a growing challenge from the China's AliBaba, which takes a more relational approach.

AliBaba was founded in 1999 by Chinese national Jack Ma. In September 2014, an initial share float of the company brought in USD27 billion. As with the other 'gig' companies, there were suggestions the revenue growth was unsustainable.³³ But its model is very different. The company's initial focus was to provide Chinese consumers with access to foreign brands as the country transitions to a domestic consumption economy. It rolled out its operations across China, especially into rural areas, while also serving the Chinese diaspora. Support from the Chinese government makes it difficult for foreign firms to compete in the domestic market; Uber sold its business in 2016 to a company part-owned by AliBaba.³⁴

The international operations have also expanded through strategic relationships. AliBaba has a joint venture with German payment processing company Wirecard. Other offshore partnerships include with Spanish Postal Service and NZ Post, a Memorandum of Understanding with the US Postal Service, and 14.4% shareholding in Singapore Post. In 2016, it bought Southeast Asia's largest online shopping platform Lazada, based in Singapore.³⁵

More recent developments reflect Ma's vision for a World e-Trade Platform or eWTP that would 'formulate international rules to eliminate barriers to eCommerce and help small businesses and consumers everywhere participate in cross-border trade'.³⁶ Ma promotes his online platform as being open to a wide range of stakeholders, including SMEs, and not dominated by governments and multinational corporations. China incorporated Ma's concept of the eWTP into the G20 Business (B20) statement when it hosted the G20 in 2016.

AliBaba's recent expansion is framed by China's One Belt, One Road strategy.³⁷ Working together, the government and AliBaba set up the China (Hangzhou) Cross-Border E-Commerce Comprehensive Pilot Free Trade Area in March 2015. Certain goods ordered by Chinese consumers from overseas companies are subject to lower tariffs and receive expedited customs processing.³⁸ AliBaba's first offshore venture is a Digital Free Trade Zone in Malaysia in collaboration with the state-owned Malaysia Digital Economy Corporation, announced in March 2017. Built on land owned by the state-owned airport company, the e-commerce hub would have logistics, cloud computing and e-finance capabilities that could provide warehousing and centralised customs clearance for Malaysia and the region.³⁹ In 2016 Ma floated the idea for a similar free trade zone near the airport in Auckland, New Zealand, with whom China has a free trade agreement.⁴⁰

Ma described his strategy to shareholders in 2016 as creating an 'ecosystem', building 'the fundamental digital and physical infrastructure for the future of commerce, which includes marketplaces, payments,

31 'Amazon launches hiring spree as it prepared for Australian launch', news.com.au, 23 January 2017 <http://www.news.com.au/finance/business/retail/amazon-launches-hiring-spre-as-it-prepares-for-australian-launch/news-story/b375c39bf9f08653d17a577d97e9d15b>

32 'Harvey Norman boss' dire warning about Amazon', *NZ Herald*, 28 February 2017; 'Warehouse prepared for Amazon juggernaut', *New Zealand Herald*, 9 March 2017

33 'China's Alibaba files in U.S. for what may be biggest tech IPO', *Reuters*, 14 July 2014, <http://www.reuters.com/article/us-alibaba-ipo-us-idUSKBN0FJ0BV20140714>

34 <http://variety.com/2016/biz/asia/uber-china-selling-to-didi-chunxing-1201827433/>

35 'Alibaba plans regional hub in Malaysia', *Bangkok Post*, 18 March 2017

36 'Jack Ma's Grand E-Commerce Plan', *Vietnam News*, 25 March 2016, <http://wji.at/Vietnam-News/jack-mas-grand-ecommerce-plan/>

37 'Ali Baba bringing Belt, Road benefits to SMEs', *China Daily*, 24 April 2017, http://www.chinadaily.com.cn/business/2017-04/24/content_29051117.htm

38 'China to Establish New Cross-border E-commerce Pilot Zones in 12 Cities', EUSME Centre, 10 January 2016.

39 <http://www.alibabagroup.com/en/news/article?news=p170322>

40 Fran O'Sullivan, 'Alibaba floats airport free-trade zone', *NZ Herald*, 1 August 2016, http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11684839

logistics, cloud computing, big data and a host of other fields'. He contrasts this to 'pure-commerce players' whom he predicts will face tremendous challenges.⁴¹ But Alibaba has created its own controversies, including for marketing counterfeit goods.⁴² In 2015 half of Alibaba's employees worked on software⁴³ and were paid partly in stock, raising questions about its financial reporting.⁴⁴ As with Uber it does not employ many distributors directly, but uses suppliers and subcontractors in a state-regulated market where independent union organisation is, at best, embryonic.

Ma talks of facilitating small businesses and there is some evidence of that. But Alibaba retains strategic control of the platform and data, which is where the real value lies.⁴⁵ It currently hosts 35 percent of total websites in China, making it one of the world's top three cloud computing companies.⁴⁶ The Taobao online commerce platform holds more than 90 percent of the consumer-to-consumer (C-2-C) market, and the Tmall platform over half of business-to-consumer (B-2-C) transactions. By holding a 48% share in Zhejiang Cainiao Supply Chain, a joint venture of five major express delivery companies in China, Alibaba controls the logistics information system while avoiding requirements of financial disclosure. Its commercial partnerships with domestic providers include the logistics and distribution arms of Haier Electronics, consumer electronics retailer Suning Commerce, FamilyMart convenience stores, China Post and China Shipping. Its online payment processor, unlisted company Ant Financial (formerly Alipay), processes nearly half of China's online payments.

While the strategy is different, Alibaba's goal is no less grandiose than GAFA: to dominate the rapidly changing landscape of retail, financial services, manufacturing and entertainment over the next 30 years through the key pillars of cloud computing and big data.

E-finance

E-commerce requires payments. Traditional banking transactions are too cumbersome and costly. Most e-commerce uses electronic payment systems that are dominated by the major international credit cards, Visa and MasterCard, and specialist on-line exchanges such as PayPal and Poli. PayPal operates in 26 currencies across 200 countries. Payment services are increasingly integrated with platforms: eBay bought PayPal in 2002, but spun it off in 2015. Alibaba's banking and finance arm Ant Financial provides a broad range of financial services to more than 450 million customers. It operates the Alipay mobile payment platform at home and markets it to offshore retailers with a large Chinese customer base.⁴⁷ Alipay and other payments platforms are integral to Ma's e-commerce 'ecosystem.'

In addition to being the medium of payment, e-finance is itself a form of e-commerce that involves sale and purchase of a service. The finance industry as a whole has embraced electronic technologies. Over several decades, automatic teller machines (ATMs), Electronic Fund Transfer (EFTPOS) and credit card purchases have reduced face-to-face transactions. Online operations range from insurance and retail banking to derivatives traders, credit raters and financial media. The share of banking, insurance and advisory services delivered online or through call centres has grown rapidly. In the US, online-only banks were reportedly attracting approximately 12% of all new primary banking relationships by 2016, compared with only 4% a decade ago.⁴⁸

Legacy banks are also encouraging customers to use online banking, meaning branch office closures, cuts to the front-line workforce, and employment of cheaper, often offshore, online workers. When

41 Alibaba, Letter to Shareholders from Executive Chairman Jack Ma, 13 October 2016, <http://www.alizila.com/letter-to-shareholders-from-executive-chairman-jack-ma/>

42 Scott Cendrowski, 'Why Alibaba can't complain about its return to the "Notorious" Counterfeit Market List', *Fortune*, 22 December 2016, <http://fortune.com/2016/12/22/alibaba-taobao-counterfeit-goods-platform/>

43 Alibaba, Letter to shareholders from Jack Ma, 2015, <http://ar.alibabagroup.com/2015/letter.html>

44 'Alibaba is paying its workforce an outrageous amount', *Fortune*, 6 February 2016, <http://fortune.com/2016/02/05/alibaba-stock-pay-disturbing/>

45 Transport Intelligence, 'Global e-commerce Logistics: e-commerce Supply Chain Profiles - Alibaba - Fulfilment', www.ti-insight.com/product/global-e-commerce-logistics-2016

46 Alibaba turns E-WTP into Reality with Creation of First Overseas E-hub, 22 March 2017, <http://www.alibabagroup.com/en/news/article?news=p170322>

47 'Auckland Airport's Alipay milestone', *NZ Herald*, 17 April 2017, http://www.nzherald.co.nz/business/news/article.cfm?_id=3&objectid=11837242

48 Jessica Dickler, 'Online banks are hot, just ask Goldman Sachs', *CNBC*, 22 April 2016 <http://www.cnb.com/2016/04/22/online-banks-are-hot-just-ask-goldman-sachs.html>

street-front operations are wound back, e-banking becomes the only option for many people in rural areas, small towns and poor suburbs, who may not have the necessary skills, or access to computers and reliable Internet. Problems of fraud and unethical practices also increase. Loan sharks and other predatory lenders who operate online become invisible and often untraceable. As e-purchases displace cash payments, retailers have also become proxy bankers, paying out cash alongside purchases. Boundaries between different services increasingly blur as retailers offer credit cards with loyalty points to pay for on-line shopping and remote delivery.

A report for Citi in 2016 suggested European and US banks may be on the brink of an ‘Uber moment’ as the explosion of fintech disrupts the industry and predicted massive job cuts over the next decade.⁴⁹ Technological investment in the financial sector was focused on ‘last mile’ payments, with those that facilitate cross-border transactions like PayPal and Poli gaining ground alongside more traditional credit cards like Visa and Mastercard.

Cross-border financial services present a potential regulatory nightmare as the finance industry finds ever-more creative ways to circumvent national regulation. For example, qualification standards, employment practices and ethics becomes almost impossible to monitor effectively when an insurance company conducts its call centre operations from multiple sites around the world. Domestic consumer protections and privacy laws may become impotent if offshore financial firms are not required to have any local presence. When financial data is held ‘in the cloud’, people’s personal and commercial information is subject to the privacy and consumer protection regime of the country that hosts the server – especially problematic when the host is the US.

The finance industry has always demanded that trade in services agreements guarantee free movement of data, alongside deregulation and unrestricted foreign investment. As online transactions have grown, the removal of restrictions on cross-border transactions and data have become their principal demand. Once they can operate globally from a single centralised platform, they can use new technologies to exploit economies of scale and deepen their dominance of global financial markets. The ‘auxiliary’ services of processing, call centres and other back office operations can operate seamlessly on a global scale. Local competitors, including state-owned banks and insurers, will struggle to survive, except in parts of the market of little interest to the big players. While some countries will continue to restrict cross-border banking and insurance transactions, and insist on maximising their regulatory capacity, that autonomy will be seriously eroded by TiSA.

The tech industry demands for TiSA

As IBM President Ginni Rometty said, the US and EU still see themselves as the rule makers. In the tech giants and their industry lobbies have privileged access to the government, for example through the US State Department’s Advisory Committee on International Communications and Information Policy (see Chapter 2).⁵⁰ As the US election and de facto TiSA deadline approached in October 2016, seven internet and tech trade groups representing all the major players, several times over, published an open letter urging an outcome on TiSA.⁵¹ They targeted 5 demands:

- i. unrestricted data flows;
- ii. a ban on data localisation requirements;
- iii. reject the EU proposal to exempt itself from not regulating ‘new services’;
- iv. ensuring that internet platforms are not liable for user-generated content; and

49 *Digital Disruption. How Fintech is Forcing Banking to a Tipping Point*, Citi GPS, March 2016, p.12

50 <http://www.state.gov/e/eb/rls/othr/2014/223376.htm>

51 *Internet Association*, including Airbnb, Amazon, Dropbox, eBay, Expedia, Facebook, Google, Intuit, LinkedIn, Netflix, Pandora, PayPal, Pinterest, Reddit, Spotify, Uber, Twitter, yahoo, TripAdvisor. *Computer and Communications Industry Association*, including Amazon, AOL, BT, Cloudflare, Data Foundry, Dish, eBay, Facebook, Dish, Google, Microsoft, Intuit, Netflix, Pinterest, PayPal, Tivo, Taxslayer, Yahoo, XO Communications, Samsung, redhat, Rabuten, Nvidea, Foursquare, Endurance International, OpenConnect, Pandora, Netaccesssystem technologies. *Information Technology Industry Council*, including Accenture, Adobe, Amazon, Apple, Brother, Canon, Dell, Dropbox, Facebook, Google, Hewlett Packard, IBM, Intuit, Intel, LinkedIn, Microsoft, Nokia, Oracle, Samsung, Sony, Tata, Visa, Twitter, Yahoo. *BSA/Software Alliance*, including Adobe, Apple, Dell, IBM, Intuit, Microsoft, Oracle, Siemens, Symantec, Trimble. *ACT/The App Association*, an organisation for small tech companies. *Consumer Technology Association*, whose list of 2200 members is not available, but most of the big players belong. Internet Infrastructure Coalition, including Amazon and Google.

- v. restricting countries' limitations on market access.

Post-election, in May 2017, the US Internet Association made a pitch to the new administration, without referring to any specific agreement.⁵² The open letter was on behalf of almost all the behemoths: Airbnb, Amazon, Coinbase, DoorDash, Dropbox, eBay, Etsy, Expedia, Facebook, FanDuel, Google, Groupon, Handy, IAC, Intuit, LinkedIn, Lyft, Match Group, Microsoft, Monster Worldwide, Netflix, Pandora, PayPal, Pinterest, Practice Fusion, Rackspace, reddit, Salesforce.com, Snap Inc., Spotify, SurveyMonkey, Ten-X, TransferWise, TripAdvisor, Turo, Twitter, Uber Technologies, Inc., Upwork, Yahoo!, Yelp, Zenefits, and Zynga. They pitched their appeal to the Trump rhetoric of jobs and protectionism:

new opportunities for U.S. workers, farmers and businesses by facilitating millions of transactions around the world through e-commerce, cloud computing, online advertising, communications, and content-delivery platforms. ... Unfortunately, governments around the world - from China to Brazil to the European Union - are enacting anti-internet laws and policies that restrict or block the ability of U.S. exporters from realizing the potential benefits of digital trade. In order to maintain U.S. leadership in the digital economy, the United States must push back on these policies and pursue rules that enable the free and open internet to thrive worldwide.

The letter built on their 2016 demands for:

- no restriction on **cross-border data flows**;
- **no localisation requirements** for data and computers;
- protecting copyright, but to **ensure safe harbours and exceptions** (fair use is critical for search, machine learning, computational analysis, text/data mining, and cloud-based technologies)
- **no ISP liability** for content posted by third parties;
- make the WTO **customs moratorium** on e-commerce permanent;
- **non-discriminatory market access** for digital services, including 'new services';
- **eliminate 'forced technology transfer'** requirements (includes source codes); and
- appoint a chief digital trade negotiator in Office of USTR and expand USTR's Digital Trade Working Group established in 2016⁵³ and which made recommendations on TiSA, among other negotiations, in the dying stages of the Obama administration in January 2017.⁵⁴

If the French digital industry is afraid ... ⁵⁵

Not all the digital industry believes such rules will create a vibrant competitive global trading market or digital domain. France's e-commerce market is the 6th largest in the world.⁵⁶ Despite this, the French Digital Council warned France's Ministry of Trade: 'There is reason to fear that TTIP [TiSA] will become an impediment to a flourishing global market transformed by digital technology, and that it will hinder the development of a sustainable digital economy and society',⁵⁷ because 'the power relationship is unfavourable to the European Union'.⁵⁸ The US enjoys a large business and intellectual lead because its long-term vision was developed and backed by military spending. The EU has no equivalent vision. Complete elimination of trade barriers between the EU and US could lead to a

52 Internet Association to Hon Robert Lighthizer, 16 May 2017, <https://cdn1.internetassociation.org/wp-content/uploads/2017/05/Lighthizer-Letter-5.16.pdf>

53 'Ambassador Froman Announced New Digital Trade Working Group', July 2016, <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2016/july/ambassador-froman-announces-new>

54 Robert Holleyman, Deputy USTR to Robert Froman, USTR, 13 July 2017, p.5, <https://ustr.gov/sites/default/files/ARH-AMF-DTWG-Letter-1-13-17-FINAL.pdf>

55 Conseil National du Numérique, 'Strengthening EU's negotiation strategy to make TTIP a sustainable blueprint for the digital economy and society, Opinion of the French Digital Council', April 2014

56 Conseil National du Numérique, p.37

57 Conseil National du Numérique, p.13

58 Conseil National du Numérique, p.6

strengthening of the American e-commerce players that already dominate the European market, and in which France wants to compete.⁵⁹

Choices regarding data processing rules in TTIP/TiSA would be critically important. The Council warned that liberalising data flows by lifting regulatory barriers would have a lasting impact on the digital industry and European economies. Data are not ordinary commodities, and the distinction between personal and commercial data is not clear-cut. Data-intensive services have become ‘a permanent feature of areas where full respect for sovereignty and fundamental freedoms is required’.⁶⁰ Healthcare, financial services, energy and security are particularly sensitive. The 1995 EU Directive on personal data⁶¹ said data cannot be transferred to a third country unless it provides an ‘adequate level of protection’ for the data. The US operates on private sector self-regulation. That was allowed by the Safe Harbour arrangement between the US and EU in 2000. The EC reform proposal from 2012 [since adopted in 2016 to come into effect in 2018⁶²] would better protect individuals’ privacy rights and control over their data. The Council pointed to Edward Snowden’s revelations as evidence that the protection of European data had to be strengthened.⁶³

On Internet governance, the Council noted that standards and technical specifications were set in forums, consortiums and private sector regulatory bodies that were mostly incorporated under US law.⁶⁴ The Americans have a dominant position and exercise strong influence over the standards that are applied. Europe was more influential in regional and international standard bodies, such as the International Organization for Standardisation (ISO). Although they are still linked to private sector standard setting bodies, the Council considered them to be more transparent and consensus based.⁶⁵ It warned that: ‘The weak position of the European Union in the digital market means that its interests would best be served by the adoption of international standards through international bodies, even if that involves adopting the standards produced by consortiums’ and that ‘relying on mutual recognition would consolidate the dominant position of American players to the detriment of European innovation and know-how.’⁶⁶

The Council advised the European Commission to base its negotiating strategy for the digital economy in TTIP on European Union values and safeguards: the right to regulate, the ability to regulate in the future, respect for the EU’s sovereignty and freedom of competition. Although the paper was written in 2014 about TTIP, French pessimism about the impact of new e-commerce rules would apply equally to TiSA.

Even an industry think-tank thinks twice

The corporate lobby tends to think only in terms of rules that can provide direct advantages. However, even some of its allies are skeptical about moves to adapt the current GATS framework to the digital domain, and see the need for a careful, and somewhat more balanced, rethink of global regulation. In 2013, the Internet Digital Economy Alliance (IDEA), an industry sponsored think tank, proposed a quite different approach that distinguished rules for the networks from substantive commercial activities. It also recognised that the technology raises new sensitivities that are not adequately addressed in the GATS. IDEA proposed four foundational principles:

- i. legal regimes must not restrict the operations of networks;

59 Conseil National du Numérique, p.37

60 Conseil National du Numérique, p.8

61 Data Protection Directive of the European Parliament and of the Council of 24 October 1995, 95/46/EC

62 Regulation (EU) 2016/679 and Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016

63 Conseil National du Numérique, p.31

64 Such as the Institute of Electrical and Electronic Engineers (IEEE), headquartered in New York, US, and The Internet Corporation for Assigned Names and Numbers (ICANN)

65 The French Digital Council was especially concerned that regulatory convergence in TTIP would allow the US to impose technical standards promoted by American manufacturers rather than harmonising, saying the market already applies US standards. Relying on mutual recognition or regulatory convergence would consolidate the dominant position of American players to the detriment of European innovation and knowhow.

66 Conseil National du Numérique, p.33

- ii. unencumbered movements of information and data;
- iii. more flexible rules than for bricks and mortar sectors; and
- iv. recognise that network-based activity does not fit within the traditional modes of supplying services under the GATS (across the border, commercial establishment in the country, temporary presence of services personnel).⁶⁷

Significantly, IDEA acknowledged that the protections for governments' right to regulate in the GATS are likely to prove inadequate to address policy priorities, especially privacy, because the context differs from the offline world that existed when GATS was negotiated in the early 1990s. Information associated with individuals is often the subject of movement across borders as an integral part of services. Conversely, measures adopted to protect national security can create significant barriers and introduce legal uncertainty, causing unnecessary damage to commerce; for example, countries became reluctant to let information be held in US in the wake of the Snowden disclosures. This favours a more protective approach to regulating for human rights and a more restrictive approach to regulation for security purposes – the converse of what the US proposes in the TiSA e-commerce annex.

IDEA predicted that trade negotiators would be wary of agreeing on constraints until national level discussions had matured, and suggested a framework convention that could be modified over time as national consensus evolved. The framework would have minimum obligations to permit the free flow of information, subject to specific provisions limiting the use of data related to natural persons.⁶⁸ That prediction has proved true in relation to the European Union. However, the legislators, consumer and human rights activists, and unions, in most other TiSA countries seem oblivious to the threats that the e-commerce agenda in TiSA would pose.

A precarious future for UNI workers

The terrible track records of Uber, Amazon and AliBaba, as well as the banks, foreshadow what the future under TiSA would look like.

The Uber model threatens to fundamentally alter the nature of work and terms of employment. A *Financial Times* story in 2016, headlined 'When the boss is an algorithm', documented a lack of basic employment rights and protections, constant surveillance, and anti-union attitudes.⁶⁹ Insecure work is disguised as flexibility. The notionally 'self-employed' receive instructions through a faceless 'algorithm manager' that dictates their terms of engagement, including price and location, and changes them unilaterally without notice. Workers carry the legal risk of non-compliance with local regulations and the financial risk of misfortune. Stories of workers living in dehumanising conditions are now legion.⁷⁰ In 2017, Uber settled with the US Federal Trade Commission over misleading drivers about how much they could earn.⁷¹ In a case brought on behalf of drivers by the International Union of Foodworkers, the London Employment Tribunal ruled in October 2016 that Uber drivers are working in an employment relationship and have enforceable rights, including a guaranteed minimum wage, paid breaks and holiday pay.⁷² Uber's anti-worker, anti-union attitude was epitomised in February 2017 by Chief Executive's verbal abuse of a driver, on top of its failure to act on sexual harassment complaints within the management team.⁷³

Amazon's fulltime and part-time workforce in 2016 had expanded to 341,000, almost 100,000 more than in 2015.⁷⁴ The company is infamous for highly exploitive labour conditions, invasions of privacy

67 International Digital Economy Alliance (IDEA), 'The Trillion Dollar Question. How trade agreements can maximise the economic potential of data in the networked economy and support the Internet as the world's trading platform', 2013, pp.2-3

68 IDEA, The Trillion Dollar Question, pp. 7-8

69 Sarah O'Connor, 'When the boss is an algorithm', *Financial Times*, 11 September 2016

70 'When their shifts end, Uber drivers set up camp in parking lots', *NZ Herald*, 24 January 2017

71 'When their shifts end', *NZ Herald*, 24 January 2017

72 Uber loses right to classify UK drivers as self-employed', *The Guardian*, 28 October 2016, <https://www.theguardian.com/technology/2016/oct/28/uber-uk-tribunal-self-employed-status>

73 'Uber CEO seen on video arguing with driver over fares', *NZ Herald*, 1 March 2017

74 <https://www.statista.com/statistics/234488/number-of-amazon-employees/>

of employees, using electronic devices to track workers, bullying of temporary foreign workers and resistance to unionisation.⁷⁵ By maintaining multiple fulfilment centres, Amazon can substitute labour if industrial action is taken. Work in its fulfilment centres is increasingly automated. Tasks are divided across receivers, stowers, pickers and packers, all monitored by electronic devices (including absences on bathroom breaks⁷⁶). Stories of drivers sleeping in cars and tents mirror those working for Uber.

Amazon's workforce costs are expected to fall further as artificial intelligence is used to replace human labour. The company acquired robotics manufacturer Kiva Systems in 2012. As of 2015 there were 15,000 robots operating in ten US fulfilment centres controlled by a central computer. The centres provided services like 'pick and pack', labelling, shipping, inventory, and returns management for small and medium enterprises (SMEs) and individual sellers. Drones have been tested for last-minute delivery, with greatest potential for delivering light packages of high value in urban areas, where individual deliveries of low volume can be costly and inefficient. Alternative delivery options include crowd sourcing, networks of automated lockers, and Pick Up and Drop-Off points. In 2016, Amazon sought to patent the use of blimps as delivery hubs from which drones could operate a delivery service,⁷⁷ potentially across the border, and to print 3-D products from trucks *en route* to deliver.⁷⁸

The Amazon model is shared by other large distributors. Britain's second largest parcel delivery firm Hermes had 10,500 couriers working for it in 2016; all are 'self-employed' and deemed not entitled to the national living wage, pension contributions, or holiday or sick pay.⁷⁹

There is little information on Alibaba's labour practices in China or in the offshore joint ventures with public and private post and courier companies. Its formal workforce is largely technical specialists, who are well rewarded, although one posted a complaint of unpaid overtime and the intense pressure of constant change.⁸⁰ It is more difficult to find much detail about treatment of its contract workers. The choice of Malaysia for the first free trade hub promises poor labour standards and struggles to unionise. There are also long-standing complaints that the well-connected Alibaba has secured contracts reserved for bumiputra.⁸¹

This report does not suggest that TiSA is responsible for these underlying trends or corporate practices. But conclusion of the deal would consolidate the power of the mega-tech players and disempower governments, voters, workers and unions in seeking to make the technology work for people.

75 Birner, *One click to empowerment?*, 2015.

76 'Amazon workers sleep in tents near site', *NZ Herald*, 11 December 2016

77 'Amazon's latest idea – a flying factory', *NZ Herald*, 30 December 2016

78 'Patent filing reveals Amazon's idea to 3D-print products on delivery trucks', *Geekwire*, 25 February 2015, <http://www.geekwire.com/2015/patent-filing-reveals-amazons-idea-to-3d-print-products-on-delivery-trucks/>

79 'Revealed: delivery giant Hermes pays some couriers less than a living wage', *The Guardian*, 18 July 2016, <https://www.theguardian.com/society/2016/jul/18/hermes-couriers-paying-staff-less-than-living-wage>

80 <https://www.glassdoor.com/Reviews/Employee-Review-Alibaba-com-RVW754825.htm>

81 Joseph Tawie, 'Alibaba contractors 'killing-off' Dayak business', *The Nation*, 16 October 2012, <http://www.freemalaysiatoday.com/category/nation/2012/10/16/ali-baba-contractors-killing-off-dayak-business/>