Entrepreneurship for Social Change

Lab for Entrepreneurship and Development

Series Editors: Bruno S Sergi and Cole C. Scanlon

Lab for Entrepreneurship and Development is Emerald's innovative book series on the study of entrepreneurship and development, striving to set the agenda for advancing research on entrepreneurship in the context of finance, economic development, innovation, and the society at large.

The Lab for Entrepreneurship and Development (LEAD), a now-independent research lab that first started at the Institute of Quantitative Social Sciences (IQSS) at Harvard University, with the overarching and ambitious aim of using the book series as to synthesize interdisciplinary research by academics and students to advance our understanding of modern entrepreneurship and development across cultural and disciplinary boundaries.

Previous volume:

Entrepreneurship and Development in the 21st Century – Edited by Bruno S. Sergi and Cole C. Scalon

Entrepreneurship for Social Change

EDITED BY

BRUNO S. SERGI
Harvard University and Lab for Entrepreneurship and Development (LEAD), USA & University of Messina, Italy.

COLE C. SCANLON
Lab for Entrepreneurship and Development (LEAD), USA

and

LUKE R. I. HEINE
Lab for Entrepreneurship and Development (LEAD), USA

United Kingdom – North America – Japan – India – Malaysia – China

Emerald Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2021

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

ISBN: 978-1-80071-211-9 (Print)
ISBN: 978-1-80071-210-2 (Online)
ISBN: 978-1-80071-212-6 (Epub)

ISOQAR certified Management System, awarded to Emerald for adherence to Environmental standard ISO 14001:2004.

Certificate Number 1985
ISO 14001

INVESTOR IN PEOPLE

Contents

List of Tables

Chapter 5

Chapter 6

Chapter 7

Chapter 8

List of Figures

Chapter 7

Chapter 8

About the Editors

Bruno S. Sergi is an Instructor at Harvard University and an Associate of the Harvard's Davis Center for Russian and Eurasian Studies and the Harvard IQSS. He is the Series Editor of *Cambridge Elements in the Economics of Emerging Markets and Entrepreneurship and Global Economic Growth*. He teaches Political Economy and International Finance at the University of Messina and co-directs the Lab for Entrepreneurship and Development (LEAD).

Cole C. Scanlon is a Social Entrepreneur whose areas of expertise include economic development, housing policy, and K-12 education. He co-directs the Lab for Entrepreneurship and Development (LEAD), co-founded/co-directs FairOpportunityProject.org (an education technology nonprofit), and was awarded Forbes 30 Under 30.

Luke R. I. Heine is a Software Social Entrepreneur. He presently builds the app where creators meet each other with a total fan base of 500 million. Prior, he started FairOpportunityProject.org, a social network used by students from 130 different universities, and the Lab for Entrepreneurship and Development (LEAD). He holds a patent in machine learning, won Forbes 30 Under 30, attended Harvard University, and was YC W18.

This page intentionally left blank

About the Contributors

Imran Chowdhury, is the Diana Davis Spencer Chair of Social Entrepreneurship and Associate Professor of Business & Management at Wheaton College in Norton, MA, and Visiting Professor at the Free University of Berlin's International Summer and Winter University. He teaches courses in entrepreneurship, strategic management and international management, and conducts research at the intersection of business and society, encompassing domains such as social entrepreneurship and innovation, corporate social responsibility, philanthropy, and community-focused organizations. Professor Chowdhury serves on the Editorial Board of *Academy of Management Learning & Education* and is a Term Member at the Council on Foreign Relations.

Daniel Cosgrove graduated with a BBA in Finance from Pace University, magna cum laude, in 2019. He is currently an Associate at Pluris Valuation Advisors LLC, where he specializes in performing valuations for a variety of illiquid assets, including private companies, private fund interests, and investment holding companies, among others. Mr. Cosgrove has an interest in entrepreneurship and innovation, and he attended the Forbes Under 30 Summit in 2018.

Luke Heine is a Software Social Entrepreneur. He presently builds the app where creators meet each other with a total fan base of 500 million. Prior, he started FairOpportunityProject.org, a social network used by students from 130 different universities, and the Lab for Entrepreneurship and Development (LEAD). He holds a patent in machine learning, won Forbes 30 Under 30, attended Harvard University, and was YC W18.

Iman Hemmatian, Ph.D., is an Assistant Professor of Strategy and Entrepreneurship in the College of Business Administration at Cal Poly Pomona. His current research focuses on how firms can develop and protect their human capital and intellectual capital. His work has been published in the innovation and management journals, including Research Policy and Global Strategy Journal.

Todd M. Inouye, Ph.D., has been an Assistant Professor of Management at the University of Hawai`i at Hilo since 2019. Prior to that, he was at Niagara University since September 2016 after receiving his Ph.D. in Business Administration from the Shidler College of Business at the University of Hawai`i at Mānoa.

His research has appeared in Small Business Economics: An Entrepreneurship Journal, Global Strategy Journal, BRC Journal of Advances in Education, and the Decision Sciences Journal of Innovative Education.

Amol M. Joshi, Ph.D., is an Associate Professor of Strategic Management at the Wake Forest University School of Business. He has thirteen years of prior experience as an engineer, executive, and entrepreneur in the communications sector. He co-founded software startup BeVocal, Inc. and co-invented two patents for speech recognition technologies. His research focuses on global innovation management and technology entrepreneurship. He is a 2016 Kauffman Foundation Junior Faculty Fellow and 2010 Kauffman Dissertation Fellow. He has published in the Strategic Management Journal, Organization Science, Journal of International Business Studies, Journal of Management, Research Policy, Organizational Research Methods, Global Strategy Journal, and Small Business Economics.

Marquita Kilgore-Nolan, M.D., is an OB/GYN resident physician at Duke University who researches maternal health equity and women's health social enterprises. She graduated summa cum laude from Emory University with a B.S. in Anthropology and Human Biology then received her M.D. from Yale University. She attended Harvard Business School and completed the Social Enterprise Summer Fellowship. Dr. Kilgore-Nolan's mission is to integrate medicine, social enterprise, and life strategy to help transform the lives of women, families, and historically marginalized communities.

Ikechukwu D. Nwaka is an Assistant Professor of Economics at the Girne American University and Co-Director of Center for Gender Studies. He received a PhD in Economics at the Eastern Mediterranean University, Cyprus. He also serves as Managing Editor of Gender, Labor and Economic Development and Editorial Member of Kadın/Woman 2000, Journal for Women's Studies. Dr Ikechukwu Nwaka's research unites several strands of emerging subjects of enquiry: inter alia the intersection of labour economics, gender in household decision-making, environmental sustainability, and health issues.

Qerim Qerimi is a Professor at the University of Prishtina and a Visiting Professor and member of the Law and Development Research Group at the University of Antwerp. His research and teaching activities are linked to such themes and areas as International Law and Sustainable Development, International Organizations and Information and Communications Technology, International Economic Law, and International Environmental Law. He is a member of Council of Europe's European Commission for Democracy through Law (Venice Commission) and vice-chair of its sub-commission on the rule of law, and a Rapporteur for Oxford International Organizations (OXIO).

Elena G. Popkova – Doctor of Science (Economics), Professor, the founder and president of the Institute of Scientific Communications (Russia) and Leading researcher of the Center for applied research of the chair "Economic policy and

public-private partnership" of Moscow State Institute of International Relations (MGIMO) (Moscow, Russia). Her scientific interests include the theory of economic growth, sustainable development, globalization, humanization of economic growth, emerging markets, social entrepreneurship, and the digital economy and Industry 4.0. Elena G. Popkova organizes Russian and international scientific and practical conferences and is the editor and author of collective monographs, and serves as a guest editor of international scientific journals. She has published more than 300 works in Russian and foreign peer-reviewed scientific journals and books.

Jeffrey A. Robinson, Ph.D., is an award-winning Business School Professor, International Speaker and Entrepreneur. Since 2008, he has been a leading faculty member at Rutgers Business School where he is an Associate Professor of Management and Entrepreneurship and the Academic Director of The Center for Urban Entrepreneurship & Economic Development. Dr. Robinson is a passionate advocate for social entrepreneurship, inclusive innovation and economic development. He is the author of books and articles on such topics as social entrepreneurship, African American women in entrepreneurship, and inclusive innovation. Emerging from his pioneering research, the New Jersey Social Entrepreneurship Institute and the CUEED Pipeline to Inclusive Innovation are national and international models for economic development and social problem solving using entrepreneurial approaches. He is the Principal Investigator of two National Science Foundation funded research projects related to inclusive innovation. He is an editorial board member for Academy of Management Perspectives.

Bruno S. Sergi is an Instructor at Harvard University and an Associate of the Harvard's Davis Center for Russian and Eurasian Studies and the Harvard IQSS. He is the Series Editor of *Cambridge Elements in the Economics of Emerging Markets and Entrepreneurship and Global Economic Growth*. He teaches Political Economy and International Finance at the University of Messina and co-directs the Lab for Entrepreneurship and Development (LEAD).

Dr Renata Thiebaut is an Advisory Board Member and Alibaba Global Initiatives Lecturer for Alibaba Business School and its affiliate Taobao University where she assists governments and mentor students on Digital Transformation. In addition, Dr. Renata has joined LEAD, a Harvard University spun-out lab, as a researcher in 2018. Dr. Renata Thiebaut has been awarded Innovator of the year in 2020 by the International Professional Women's Society.

Kalu E. Uma is an Associate Professor at the Alex Ekwueme Federal University, Ndufu-Alike Ikwo, Department of Economics and Development Studies, Ebonyi State, Nigeria. He has taught economics for over 16years. His research interests are public sector economics, international economics, economics of development and urban economics. He is also an Associate Fellow at the African Heritage

(formerly the African Institute for Applied Economics) and a full member of the Nigeria Economics Society.

Andreia Costa Vieira is a Lawyer registered at the Brazilian Bar Association; she holds a PhD in International Law (USP – having finished her PhD studies at the University of Cambridge, where she was also Visiting Fellow of the Lauterpacht Centre for International Law), an LLM in International Commercial Law (University of Nottingham, UK), and a B. A. in Law (UFV). She is the Founder of the ACV International Law Institute in Brazil. From 2002 to 2020, she was a Professor of undergraduate, Masters and PhD Programs in International Law and International Economic Law and Sustainable Development in different universities in Brazil and the MBA Program in International Business at the University of Steinbeis/Germany/Brazil. She was a temporary Delegate Member of the Brazilian Diplomatic Mission to the WTO and UNCTAD in Geneva (2017). She was a lawyer for the UN High Commission for Refugees/Caritas/Ministry of Justice Partnership, in Brazil, in charge of legal petitions and oral proceedings to recognize the status of Refugees (2012–13). From 2014 to 2019, she was a Post-doctoral Researcher at the Centre for Global Trade and Investments (CCGI) at FGV – a think tank based in São Paulo (2014–19).

List of Contributors

Imran Chowdhury	Wheaton College (MA)
Daniel Cosgrove	Pluris Valuation Advisors LLC
Luke Heine	Lab for Entrepreneurship and Development (LEAD), USA
Iman Hemmatian	Cal Poly Pomona, USA
Todd M. Inouye	University of Hawai`i at Hilo, USA
Amol M. Joshi	Wake Forest University, USA
Marquita Kilgore-Nolan	Duke University Medical Center (Durham, North Carolina, United States of America)
Ikechukwu D. Nwaka	Department of Economics, Girne American University,Kyrenia, Cyprus (North Cyprus)
Elena G. Popkova	MGIMO University (Moscow State Institute of International Relations), Moscow, Russia.
Qerim Qerimi	University of Prishtina, Kosovo and University of Antwerp, Belgium
Jeffrey A. Robinson	Rutgers University, USA
Bruno S. Sergi	Harvard University and Lab for Entrepreneurship and Development (LEAD), USA & University of Messina, Italy.
Renata Thiebaut	Taobao University and Alibaba Business School Professor, China
Kalu E. Uma	Department of Economics and Development Studies, Alex Ekwueme Federal University, Ndufu-Alike Ikwo, Abakaliki, Ebonyi State, Nigeria
Andreia Costa Vieira	ACV International Law Institute, Brazil

This page intentionally left blank

Foreword

If you have a vision for how the world should be and you're an impatient person, entrepreneurship is probably the path for you. Everyday, we rely on mission-driven entrepreneurs to make our lives easier, safer, healthier, and more meaningful. They create new jobs, provide the lifeblood of our communities, and – a few times each decade – dramatically change how humans across our planet go about their everyday lives. Perhaps most importantly, entrepreneurs provide us all with ever-growing opportunities to find our own purpose in life.

We all owe the entrepreneurs who have come before us a great deal of gratitude for taking risks to drive society forward. While we may not be able to say thanks in person, we all have a way to repay them: betting on ourselves, our ideas, and taking risks of our own.

Rohan Pavuluri
CEO, Upsolve
Times 100 Recipient
Forbes 30 Under 30

This page intentionally left blank

Acknowledgments

We would like to express thanks, first and foremost, to the contributors of *Entrepreneurship for Social Change*, the second book of the Lab for Entrepreneurship and development book series and our publisher, Emerald Publishing. In particular, we would like to thank the Executive Editor Charlotte Maiorana for her help and support in setting up the new book series and the staff members at Emerald Press who assisted in making the second book in the series possible.

This page intentionally left blank

Introduction

A central theme of our contemporary period will be the ease of sharing an idea.

As more ideas come online, more factorials exist between the interfaces, providing an opportunity for innovation like never before. A child in Missouri and Malaysia can take online Harvard classes for free. In the comfort of your home, you can have a browser tab open to Shakespeare's work, another being used to pay your taxes, all while streaming a tutorial on chemical titration. Cheap, fast, and easy idea transfer has changed how you get to work, what and how you eat, and the language you use.

And far from confined to our phones, computers, the information age is now increasingly home in our physical one. For example, a car designer in India can send a CAD model to begin immediately printing in an office in Detroit, a pharmaceutical company in Switzerland can immediately change drug production with an automated lab in Boston.

Sixty years ago, our advances would have been considered fantasy. Now they seem almost blase. With our new tools have come new responsibilities. And it seems our odyssean journey today is wading through the outcomes of our own creations. We are living in an era where entire livelihoods are blooming, changing, dying, shrinking, and expanding along with the communities that comprise them.

The following chapters in *Entrepreneurship for Social Change* follow these changes and provide snapshots of innovation and entrepreneurship in the information age. This compilation of chapters is the second book of a series of works investigating our changing world made possible through LEAD, the Lab for Entrepreneurship and Development, a Cambridge-based worldwide network of both junior and senior researchers collaborating and exploring. Far from exhaustive, we hope that the following readings open new questions and explorations for the readers, along with continued interest and participation for researchers around the world in LEAD.

Bruno S. Sergi, Cole C. Scanlon, and Luke R. I. Heine

This page intentionally left blank

Chapter 1

Building Up the Concept of Responsible Entrepreneurship within the Digital Silk Road

Renata Thiebaut

Abstract

Cybersecurity and data protection concerns have gained notoriety in past years intensified by the Facebook-Cambridge Analytica "scandal" in early 2018, which exposed millions of individual data. This case revealed that both regulatory measures and data protection mechanisms were, and still are, insufficient, with several countries reforming or promulgating new legislation. The Article 19 EU General Data Protection Regulation (GDPR) contains controversial extra-territorial provisions, which might violate State Sovereignty principles. It is still unknown how the GDPR will be implemented. This chapter reveals data protection as an Ethics discipline, considering that it is a fundamental right of individuals to share or not to share data, vis-á-vis the rights to have the personal data well-protected. The empirical research will be developed based on the need to build up a concept of Responsible Entrepreneurship in the technology sector, applied to cross-border e-commerce. The Digital Silk Road is the case study selected since it represents a complex international cooperation initiative done without institutionalization yet with eminent data surveillance concerns when building network infrastructure and satellite navigation systems.

Keywords: Belt and Road Initiative; Digital Silk Road; data protection; cybersecurity; Responsible Entrepreneurship; L81 – Retail and Wholesale Trades

JEL classifications: L26; G38; K33; O19

Entrepreneurship for Social Change, 1–15

doi:10.1108/978-1-80071-210-220211001

1. Introduction

Technology is one of the main drivers of economic development, impacting different industries for increased competitiveness at lower costs. For Joshua P. Meltzer (2014) "(…) cheaper telecommunications, strategic information on overseas markets, legal and consulting services, and cloud computing (…)" are some of the areas that can benefit the most from a continuous innovation process. While technology disruption is a measurement and factor that enables economic growth,[1] the high costs involved pose as one of the main barriers for developing countries, which mostly rely on international cooperation for technology transfer. Forouharfar adds that innovation and opportunity growth are part of entrepreneurship, bringing positive social transformations, thus an increase of income (Forouharfar, Rowshan, & Salarzehi, 2018).

The Digital Silk Road,[2] a digital development strategy part of the Belt and Road Initiative (BRI), aims at promoting and investing in telecommunications, the internet of things infrastructure, and e-commerce. Investment opportunities funded by the One Belt One Road Fund, the Asian Infrastructure Bank, among other financial institutions (Kennedy, 2015), help to underscore its transnational character. The initiative is perceived as a channel to improve internet penetration, developing technology in several sectors, and bringing more business opportunities for countries that strive for international insertion.

The China Association for Friendship, a public organization under the government's administration, was one of the first institutions to sign a strategic agreement with the private companies DBAPP Security Ltd. and Beijing Venustech in 2018, being one of the first projects of the Digital Silk Road (Green, 2019). The three parties seek to engage in the network security infrastructure business in BRI countries. Other undergoing projects are (a) China Telecom, China Unicom, and China Mobile's investments in optical cable networks in the Philippines[3]; and (b) development of Beidou navigation satellites in Pakistan by China National Space Administration (Brown, 2017; Hong, 2018).

Technological cooperation is often a subject of discussion since the risks involved can be numerous, frequently being a matter of international dispute and the World Trade Organization's (WTO) consultation body. China is a respondent of two consultations filled by the United States and Europe (DS54: China – Certain Measures Concerning the Protection of Intellectual Property Rights and DS54919: China – Certain Measures on the Transfer of Technology) alleging patent usage without authorization, breach of the Agreement on Trade-related

[1]See Schumpeter (1942).

[2]The Belt and Road Digital Economy international cooperation document was signed by China, Egypt, Laos, Saudi Arabia, Serbia, Thailand, Turkey, and the United Arab Emirates during the 4th World International Conference on December 2017. Other BRI members are expected to join.

[3]China Telecom, China Unicom, and China Mobile are State-owned enterprise, but in the previous years they had shares acquired some of largest Internet companies in China, as part of the government's mixed-ownership reform.

Aspects of Intellectual Property Rights (TRIPS)'s Articles 3 and 4, national treatment and most-favored nation treatment principles, which are the imposition of direct or indirect subsidies, data coercion and property theft that is suggested to benefit local firms.

The allegations suggest that national legislation and policies contain forced contractual terms regarding licensing and technology transfer, with discriminatory provisions, limiting the right holder to commercially exploit the intellectual property rights in China, particularly after the joint venture contract has expired.

Technology transfer is considered to be one of the most viable solutions to develop local economies (Stepp & Atkinson, 2012), yet it can become an obstacle to imports and international cooperation. To avoid subsequent legal matters, it is paramount to secure these investments within the BRI and the Digital Silk Road, since they involve over 120 countries with distinct legal environments (Meltzer, 2014).

The BRI[4] became a multilateral platform for investments in the infrastructure of ports and roads (Horvath, 2016), outside of the Bretton Woods System.[5] All investments are done through facilitated loans provided by state-owned and multilateral development institutions. From the geopolitics perspective, it contributes to positioning China as the main provider of foreign direct investments (FDIs).

List of financial institutions, partners of the BRI:

1. Agricultural Development Bank of China (ADBC)
2. China Development Bank (CDB)
3. Export–Import Bank of China (CHEXIM)
4. Agricultural Bank of China (ABC)
5. Bank of China (BOC)
6. China Construction Bank (CCB)
7. Industrial and Commercial Bank of China (ICBC)
8. China Investment Corporation (CIC)
9. Silk Road Fund (SRF)
10. Asian Development Bank (ADB)
11. Asian Infrastructure Investment Bank (AIIB)
12. New Development Bank (NDB)

Join-investment Funds, such as China–UAE Joint Investment Fund (China–UAE Fund) and China–Africa Development Fund (China Economic Information Service, Development Finance Institutions Jointly Support the BRI).

[4]The Chinese President Xi Jinping inaugurated the One Belt One Road in 2013 and later renamed it to Belt and Road Initiative.

[5]The Bretton Woods Agreement and System created in 1944 a collective international currency exchange regime based on the US dollar and gold, establishing the World Bank and the International Monetary Fund for international cooperation.

Fig. 1. The Digital Silk Road Map. *Source*: Own.

From 2013 until now, several projects have started, including the China–Pakistan Economic Corridor of 62 billion dollars. Though infrastructure is the core goal of the BRI, there was a common understanding to expand the initiative to the digital-related areas. During the 4th World International Conference on December 2017, Laos, Saudi Arabia, Egypt, Serbia, Thailand, Turkey, and the UAE agreed upon extending the framework of the BRI, naming it Digital Silk Road (or Information Silk Road), aiming at developing technology infrastructure, e-commerce (logistics and online payment), and telecommunication. 5G and satellite system developments are the core of this initiative (Fig. 1).

2. Discussions on Emerging Data Protection Risks

Expanding the BRI to digital investments enables countries to disrupt a series of industries, from telecommunications to artificial intelligence. For China, the BRI represents an alignment with the Made in China 2025 (中国制造2025), a governmental directive that seeks to strengthen its manufacturing value chain capabilities and high-tech industries. Huawei and ZTE, in the telecommunications sector: Alibaba, Tencent, and Jingdong (Brown, 2017) in e-commerce, online payment, and logistic servicing are examples of private companies that can leverage public support to establish international expansion strategies (Sergi & Scanlon, 2019). Notwithstanding, China has leapfrogged any other country in terms of artificial intelligence and 5G technology, so cooperation based on transparency is the backbone of the Digital Silk Road's legitimacy.

Huawei,[6] for instance, is in the international media's spotlights because of the fear of data collection for espionage and surveillance through secret hardware

[6]Huawei Technologies is currently the largest telecommunications equipment manufacturer in the world.

infrastructure's backdoors (Volodzko, 2019). The United States has banned Huawei's operations with escalating legal actions from both sides, while Australia, Canada, New Zealand, and several other countries have either banned Huawei's technology or raised concerns over this possibility. Conversely, Zambia's national data center was built by the company, a project part of the Smart Zambia program to digitalize the country's public services (Moss, 2017), with loans from the Chinese government of around 75 million dollars. This is the first of many other cloud data centers Huawei is developing in Africa.[7]

The Chinese government has issued the new Foreign Investment Law for public review in early 2019, restraining intellectual property theft and forced transfer of technology (Devonshire-Ellis, 2019), topics of growing criticism also within the WTO.

China has continuously reformed its legal apparatus and passed new legislation, such as Intellectual Property regulations, Cybersecurity Law, and E-commerce Law to create a stronger legal environment that not only brings positive impacts to the growth of key industries but also supports international efforts amidst an economic slowdown. This dualistic perception of Huawei together with China's engagement to legal reforms emphasizes current insufficient legal framework to enhance international technological cooperation.[8]

The European Union passed the Article 19 EU General Data Protection Regulation (GDPR), which contains controversial provisions regarding the extra-territoriality implementation of the Article, whenever there is a proven relationship with the European Union, such as trade of goods or services to its individuals; or the need to monitor the behavior of European Union individuals.

> Cross-Border Data Transfers to a recipient in a third country may take place if the third country receives an Adequacy Decision from the Commission. Factors that may affect an Adequacy Decision include, inter alia: the rule of law and legal protections for human rights and fundamental freedoms; access to transferred data by public authorities; existence and effective; Functioning of DPAs; and international commitments and other obligations in relation to the protection of personal data. (Rec. 103–107; Articles 44 and 45)

The current list of Adequate Jurisdictions is Andorra, Argentina, Canada, Switzerland, the Faeroe Islands, Guernsey, Israel, Isle of Man, Jersey, New Zealand, and Uruguay. It is still unclear technological transfer procedures with countries that are not part of the Adequate Jurisdiction list.

---

[7]The USA –China trade war has influenced Huawei's global expansion. The company, which would import American chips, has announced continuous efforts in shedding its dependence on American parts.

[8]Huawei needs to abide with both European and Chinese regulations, which for China, there is the need to handle data to the Chinese government if requested in case of state security, based on the 2017 Intelligence Law.

The Article 19 has a direct impact on the BRI because Italy has signed a Memorandum of Understanding (MOU) with China in March 2019 for projects regarding infrastructure, trade, and finance (Bindi, 2019), so the GDPR will have a relevant role when these projects are implemented.

3. Data Localization Laws and the Implication for Cybersecurity Threats

The Chinese Cybersecurity Law (CSL) influences public agenda along the BRI for national cyberspace governance, imposing new restrictions for certain classes of digital information since "personal information and important data collected and generated by critical information infrastructure operators operating within the borders of the People's Republic of China should be stored within China," as stated on its Article 37. However, there is no precise definition of the term "important data" (Hill, 2014), allowing multiple interpretations.

Other legislation has further ruled over data storage and cross-border transmission, being the Draft Measures for Security Assessment of Cross-border Transfer of Personal Information and Important Data and the Draft Guidelines for Data Cross-border Transfer Security Assessment from 2019 the main ones. Besides the local data storage provision from the CSL, a threshold of 500,000 personal data to be sent abroad within one year was stipulated within the Draft Measures Article 7 (Xia, 2018). In the case of cross-border e-commerce, the companies that do not have a registered entity in mainland China and have their goods shipped from a territory outside of mainland China will be strongly affected, not to mention if the business is also ruled by the GDPR.

The People's Republic of China Electronic Commerce Law,[9] effective on January 1, 2019, states on its Article 71 that compliance mechanisms shall be adopted by business entities shall protect personal information and commercial data obtained in the transaction as a mean of transaction data storage, exchange, and protection system. Since both State and the Law support cross-border e-commerce activities for small enterprises related to online business, further guidance is necessary. It is suggested that the Digital Silk Road, as a global initiative, has a designated organ that provides further guidance to small- and medium-sized enterprises (SMEs).

Legal harmonization coordination by the Supreme People's Court of China with Courts and Arbitration centers from other Digital Silk Road members will be necessary to avoid data localization conflicts, since data are the backbone of several planned projects.[10] The goal of measurement is to provide mechanisms to boost cooperation, hence avoiding further legal barriers.

---

[9]The data provisions of the PRC Electronic Commerce Law is in line with the Cyber Security Law (2017).

[10]The Supreme People's Court of China established the China International Commercial Courts in Shenzhen and Xi'An in 2018 to rule BRI cases. Though the courts have started hearings in 2019, the cases are related to the initiative.

4. The Need to Implement Economic Reforms: The Special Economic Zones in the Chinese Economic Reform Context

4.1. The Shenzhen Case

In 1978, Deng Xiaoping assumed as the new leader of the People's Republic and proposed a series of gradual economic reforms at the Eleventh Central Committee of the Chinese Communist Party, which would include the agriculture's decollectivization, because of its inefficiency and food shortage; and Open-Up of the Chinese economy to foreign capital in certain industries, often monopolized by State-Own enterprises. It was the beginning of China's transition from an agricultural and planning economy to a "Socialist market economy."

The establishment of Special Economic Zones (SEZs) was the most incisive step-forward to develop the coastal area of the country and foster the transportation and manufacturing industries (Ota, 2003). According to the World Bank, a SEZ is "geographically delineated economic areas in the form of export processing zones, special industrial zones, or free trade zones" (Creskoff & Walkenhorst, 2009) with loosening economic laws and regulations and less control from the Central government. Shantou, Shenzhen, and Zhuhai in Guangdong Province and Xiamen in Fujian Province were defined by the Government as China's first official SEZs.[11]

The Law of the People's Republic of China on Chinese-Foreign Equity Joint Ventures allowed four different joint ventures: (a) equity joint-ventures; (b) wholly foreign-owned subsidiaries; (c) contractual joint-ventures, when a Chinese company provides land, installations, and labor force and the foreign company provides equipment, capital, and technical exports; and (d) joint explorations, which comprise a cooperation for joint explorations for offshore oil. As incentives, tax reductions were 15% in the first year of business operation, a full tax exemption in the first two years, and a 50% reduction in tax during the three following years (Heidrich & Hausmann, 2007).

The formation of joint-ventures for export-oriented manufacturing industry was a method of securing foreign exchange to purchase advanced technology. FDIs and the international trade surplus would bring foreign currency to the SEZs to purchase foreign technology. As a result, it enhanced capital formation and consequently technology development (Zhang, 2006).

In 1983 Shenzhen received 180 million renminbi in investments (around 26 million USD), over 50% of China's total FDI, and by 1986, the city had already developed different industries, such as communications and technology (Yeung, Lee, & Kee, 2009).

It was within this context that not only new industries emerged but also several opportunities for startups and small enterprises arose. Shenzhen, originally a fishing village, was the first special economic zone established by Deng Xiaoping,

[11]Today, the cities Shantou, Shenzhen, Zhuhai, Xiamen, the entire Hainan Province that became an SEZ in 1988 and Pudong in Shanghai that became an SEZ in 1990 are China's Official Special Economic Zones.

and today it is known to be the global Silicon Valley of Hardware, home of the internet gigantic Tencent, ZTE telecommunications company, and DJI, a manufacturer of unmanned aerial vehicles.

Shenzhen now ranks 4 in the ranking of Startup Ecosystem Ranking in China, after Beijing, Hong Kong, and Shanghai (Startup Ecosystem Rankings Report; StartupBlink, 2019). The Chinese SEZs were and still are a successful model to be replicated yet considering special characteristics of the regions chosen for both infrastructure developments and promising market size.

4.2. Best Practices for the Digital Silk Road

Several China-led initiatives started by leading private internet companies have begun an era of digital cooperation in Asia. Alibaba and its financial arm, Ant Financial,[12] have worked with the United Nations, World Economic Forum, and the WTO to achieve the sustainable goals through the creation of job opportunities, enabling greater entrepreneurship specially with new sustainable retail developments. Other projects implemented by Alibaba in other countries are:

a) The Malaysian and Chinese governments together with Alibaba Group implemented the Digital Free Trade Zone (DFTZ) in Malaysia in 2018. The DFTZ aims at driving the export of SMEs through digital activities, which includes logistics, marketplace, and online payment. The DFTZ is the only SEZ catered to e-commerce and logistics to support online activities that might have a direct impact on entrepreneurship in the region.
b) The Electronic World Trade Platform (eWTP): The eWTP is an Alibaba-led online platform to reduce regulatory barriers and facilitating the online trade of goods among its members (Sergi & Scanlon, 2019). Belgium is the only European country to join the platform at the end of 2018. Largely compared with the WTO, the overall goal of the eWTP is to create a beneficial environment for online businesses.

The DFTZ and eWTP are important mechanisms to leverage infrastructure and technological innovations in developing countries, specially catering to small businesses, but as they mostly have private investments, they are not considered developmental mechanisms of the Digital Silk Road. For Hong, "Alibaba's effort to construct an Electronic World Trade Platform (eWTP) in the framework of building an e-commerce Silk Road offers an illustration of where the state's political and strategic aims converge with its Internet firms' economic drivers" (Hong, 2018), however governmental participation resumes at providing support

[12]While Alibaba Group focuses on sealing partnerships with International Organizations, Jingdong has invested in overseas warehouses to cover more than a hundred countries and regions.