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From Sars To Covid-19: Rethinking Global Health Lessons From Taiwan

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Abstract: *The United Kingdom's withdrawal from the European Union, known as Brexit, is arguably the most important political, social, and economic phenomenon in British post-WWII history. This paper analyses parliamentary debates from December 2018 concerning the European Withdrawal Act, focusing on thepistemic modality of Member of Parliaments' (MP) statements, to investigate the ontology of Brexit. Epistemic modality refers to linguistic devices that allow modification with regards to confidence, truthfulness, and probability, and enables investigation of MPs' commitments. Commitments are a part of their status function declaration, which create institutional reality. Analysis of such commitments permits inference about the institutional reality of Brexit.*

Keywords: *rivalry, sexually abuse, State employment, decisions, stockbreeding, violations, 19th century.*

Introduction

I particularly enjoyed the chapter by Kamran Arjomand on the introduction of Western sciences in nineteenth-century Iran. According to the author, "modern scientific inventions such as the steam engine, photography, and telegraphy, when first introduced, could not be generally apprehended and often invoked the same sort of astonishment reserved for magic and miracles" (p. 29). Then, it discusses the Quranic perspectives on miracles and supernatural beings and the ways Shiʾite theologians in Iran responded to the modern sciences. Finally, Arjomand compares the reaction of Sunni Islam theologians on similar issues in his conclusion. As such, this chapter makes for fine reading for readers with a general understanding of Islam.

Nurhaidi Hassan's work also discusses the integration between science and Islam. He mainly observes it in the contemporary Indonesian context, particularly in the Sunan Kalijaga State Islamic University (UIN Sunan Kalijaga). Emerged as a creative meeting ground of modern and classical elements of Islamic instruction, this institution transformed into a higher education institute that promoted integration and interconnection of Islam and science as their paradigm. He believes that this paradigm "enables scholars to build a dialogue between three different domains of knowledge, i.e., hadlarat al-nash (Islamic knowledge originating in religious texts), hadlarat al-ilm (natural and social sciences) and hadlarat al-falsafa (ethical and philosophical knowledge)" (pp. 8–9). As a result, the university has benefited greatly from the close engagement of its faculty members with global scholars, including Fritz Schulze. This collaboration increased when Schulze developeda program that involved his home university, George August University Göttingen, and UIN Sunan Kalijaga.

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Notaries emerged as a new professional figure in southern Europe during the twelfth century. Footnote5 The ruling authorities delegated to them the power of penning records that could withstand the scrutiny of proof in court. By following specific authentication protocols and record-keeping instructions, notaries transformed the will of private individuals into a written document with legal validity. A historian has therefore called them "brokers of public trust" (Nussdorfer Reference Nussdorfer2009: 4). The efficacy of notarial deeds derived from their highly standardized language, which means that one cannot know whether the parties would have made the same agreement, or any agreement, had they not hired a notary. Some notaries were employed by municipal, corporate, feudal or royal magistrates, by convents, tribunals, or guilds, while others had their own offices. Here we analyze the records produced by the latter, who, by the eighteenth century, operated virtually everywhere in continental Europe and issued deeds to clients in exchange for a small fee.Footnote6

All historians know that notarial records are vast, and some have counted them. But typically, they have considered only one type of deed, notably the phrasing of last wills to trace the evolution of religious attitudes (Vovelle Reference Vovelle1973) or the appearance of new items in probate inventories to study consumption (Beauvalet-Boutouyrie et al. Reference Beauvalet-Boutouyrie, Gourdon and Ruggiu2004). Only one strand of scholarship, originating with Jean-Paul Poisson (Reference Poisson1985–90), considered notarial collections as a whole and used descriptive statistics to assess the role of notaries in economic and family life. While weutilize some of Poisson's work, we mostly gather new data and expand his comparisons beyond France. We agree with Laurence Fontaine (Reference Fontaine1993), who criticizedPoisson for

imposing an anachronistic classification system on the data that he collected (he grouped all deeds in two categories, “credit” or “family”) and for ignoring the fact that

notaries did not register all transactions. Fontaine insisted on the need to map the institutional environment to which any notarial archive belonged before deciding which quantitative treatment might be suitable but did not suggest how to achieve this goal. We show that quantification helps us to produce this mapping.

Literature Review

"Not unlike other nations, questions about gender identities and their modes of articulation have been the focus of much contestation in Malaysia.1 The nation’s tableau of state-sponsored religiosity, identity politics, and large-scale prioritization of traditional values have ensured that gender movements that go against the grain are often blamed for the erosion of religious and moral values. At least two realities exist in this present state of gender dynamics—a normalized, tiered system of gender relations that prioritizes men to varying degrees, and the broader conditions of communal social proprieties that undergird these modes of gender. These can be observed in Malaysian television, notably in the highly popular Malaysian Malay (hereafter referred to as Malay) sitcom Senario. While Senario is ‘only’ a sitcom, the show’s significant popularity with Malay audiences suggests these gender performances are accepted and, presumably, mirror lived realities. A symbiotic relationship therefore exists between Senario, Malay television more broadly, and Malay social reality.

This tacit acceptance by the show's audiences is unsurprising when we consider that communal Malay understandings of gender modes are frequently interpreted through quotidian notions of 'tradition' and/or 'culture' (and their binary opposites).2 Female Malay identities, for instance, are often embroiled in, among other concerns, issues about femininity's congruence with, and negotiation of, popular notions of tradition, modernity, and religious principles that are often informed by patriarchal status.3 My own work about the performances of female identities in Senario, and on Malay television more broadly, confirms the televisual reconstruction of this reality (Lee 2017, 2018, 2019). However, there are no critical studies that focus on the performances of effeminacy or non-heteronormativity in Malay television or Senario, even as non-heteronormative communities continue to live in precarious spaces at the periphery of Malaysia's religio-cultural norms." "Artificial intelligence (AI) has been drawing increasing attention in both academic and policy circles, due to its disruptive nature and enormous growth potential (Agrawal et al. 2019; Buarque et al. 2020; European Commission 2018). AI can be relevant to any intellectual task performed by machines (Russell and Norvig 2010). In this sense, AI is expected to have a pervasive role in the economy. Scholars have emphasized the potential of AI as the next general purpose technology (GPT),Footnote1 and how AI could revolutionize the economy by penetrating and transforming a wide range of sectors (Agrawal et al. 2019; Brynjolfsson et al. 2019; Cockburn et al. 2019; Trajtenberg 2019). From a regional perspective, the diffusion of AI entails new opportunities for a region to expand its technological portfolio and create new growth paths, which matters for the region's structural change and long-term sustainable development.

What drives the emergence of new technologies or growth paths in a region has been one of the core topics in the field of evolutionary economic geography (Boschma and Frenken 2006). This strand of literature approaches regional iversification as a process of regional branching: New technologies or activities are more likely to emerge in a region when they are related to the preexisting local capabilities (Frenken and Boschma 2007; Boschma 2017). Technological relatedness is argued to capture cognitive proximity which, along with other dimensions such as geographical or institutional proximity, could facilitate knowledge diffusion within regions and thus explain why related technological activities are more likely to emerge (Rigby 2015; Boschma2017). This group of research has often focused on the average effects of technological relatedness. However, the importance of technological relatedness may differ by types of preexisting technologies. Technological evolution is argued to be driven by a few GPTs (Bresnahan and Trajtenberg 1995). Following this logic, regions differ substantially in terms of technological and industrial structures as a consequence of previous GPTs, which sets the limitations to the emergence of future technologies.

Surprisingly, little attention has been paid to how regional branching is influenced by GPTs. GPTs have been emphasized as a key tool for smart specialization policy, as the diffusion of GPTs is believed to create new opportunities through the co-invention of applications (Foray et al. 2009; Montresor and Quatraro 2017). Information and communication technologies (ICTs) are widely considered the currently predominant GPTs, displaying an ability to spawn future innovations and having applications across a wide range ofsectors (see, e.g., Basu and Fernald 2007; Cardona et al. 2013; Jovanovic and Rousseau

2005). However, our knowledge of how the technological relatedness of ICTs influences regional technological evolution is limited.

To fill the gap, this study aims to investigate how a regional knowledge base of ICTs influences the emergence of

I technologies in European regions. We argue that ICTs, asthe currently predominant GPT, should play a critical role in breeding the next generation of digital technologies in general and AI technologies in particular. First, ICTs provide a knowledge base and building blocks that equip regions with digital capabilities and infrastructures to underpin the local capabilities of capturing AI opportunities. Second, the diffusion of ICTs unlocks new technological opportunities for AI and thus increases recombination possibilities for regional technological diversification.

Recent empirical studies have directed attention to regional diversification processes of newly emerging technologies, such as fuel cell technologies, nanotechnologies, biotechnologies, and Industry 4.0 technologies (including AI) (Balland and Boschma 2021; Colombelli et al. 2014; Feldman et al. 2015; Heimeriks and Boschma 2014; Laffi and Boschma 2021; Montresor and Quatraro 2017; Tanner 2016). Few studies, however, have examined the regional evolution of AI. One of the main reasons is attributed to the lack of appropriate data (Buarque et al. 2020). Over the last couple of years, EPO (2017) and WIPO (2020) have separately released methods to identify AI patents based on key phrase or patent classification code searching. Among the limited studies on regional development related to AI, Buarque et al.'s study (2020) focuses on the geographical mapping of AI technologies inEuropean regions

and explores the role of AI in regional knowledge networks. They find that AI successful regions are more likely to be the regions where AI technologies are most embedded in their knowledge space. A study by Balland and Boschma (2021) focuses on the regional knowledge production of Industry 4.0 technologies (including AI) in general. Theyfind that a new Industry 4.0 technology is more likely to emerge in a European region if the existing technologies in the

egion are highly related to Industry 4.0 technologies. A very recent study by Laffi and Boschma (2021) provides more direct evidence showing that the probability of the emergence of Industry 4.0 technologies is higher for regions that specialize in Industry 3.0 technologies. These studies concentrate either on the current position of AI technologies in the knowledge space or on the relationship between Industry 3.0 and Industry 4.0 technologies in general.

The role of GPTs in technological diversification hasbeen neglected in the extant literature. One exception is the study by Montresor and Quatraro (2017). They examine the effects of GPTs by focusing on a group of new generation key enabling technologies, such as industrial biotechnology and nanotechnology. However, there has been no direct evidence exploring how GPTs influence the emergence of AI at the regional level. Particularly, to our best knowledge, to date there have been no studies that have explicitly explored which technologies serve as the main knowledge sources of AI technologies.

To explore how a regional knowledge base of ICTs influences the emergence of AI technologies, we built a dataset for the period from 1994 to 2017 based on the patent data from

the OECD REGPAT database. We use the PATENTSCOPE Artificial Intelligence Index developed by the WorldIntellectual Property Organization (WIPO 2019, 2020) to identify AI patent applications. Following the definitions ofWIPO and OECD, our study focuses on AI technologies within the scope of artificial narrow intelligence (ANI), where AI systems are defined as machine-based learning systems designed to accomplish a specific problem-solving or decision- making task with varying levels of autonomy (OECD 2019; WIPO 2019). To analyze the knowledge source of AI

echnologies, we conduct a citation analysis to identify the technological fields of the patents that were cited by AI patent applications. We find that instruments and ICTs are two major knowledge sources cited by AI patent applications. Among others, the importance of ICTs, particularly advanced digital technologies, has become increasingly significant over time. In the period from 2012 to 2017, ICTs have surpassed instruments and become the largest knowledge source cited by AI patent applications. In addition, we calculate the average technological relatedness of ICTs to a region's existing knowledge base and model its effects on regional knowledge production of AI. Based on a fixed-effects negative binomial model, we find thata high regional level of technological relatedness of ICTs increases AI inventing. The effects of technological relatedness of ICTs are stronger for regions which have recently caught up regarding AI inventing.

The rest of the paper proceeds as follows. Section 2briefly reviews the relevant literature and discusses the theoretical background. Section 3 describes the data and methodology. Section 4 presents the analyses and the findings, and the final section concludes and discusses the paper.

" At the time, there were Chinese writers who advanced similar claims. They did not seem, though, to have regarded the three inventions as a set in the way that Bacon, Marx, Davis, and others had. Instead, they referred to eachinvention either by itself or alongside other novelties of supposed Chinese origin ("Chinese Origins of Western Inventions" 1889). According to historian Galen Poor, the phrase "three great inventions" (三大發明) only appears inChinese in 1909, showing up in the pages of a late Qing textbook on Western history (Poor 2020: 74). In the years that followed, the three inventions would be regularly bundled together, even as they were more forcefully put forward as

vidence of China's material contributions to the global past and present. "China invented such important things as the compass, printing, and gunpowder," the "nation's father" Sun Yat-sen 孫中山 (1866–1925) declared in a 1924 speech. "Foreign countries are as powerful as they are in this moment because they now know how to use them" (Sun 1924: 76).

"This article aims to address that lacuna by positing two questions to identify linkages between Senario's performances of non-heteronormativity and broader Malay socio-cultural attitudes towards these communities: (1) how are non-heteronormativity and effeminacy performed in Senario, specifically in the forms they take, and (2) what do these performances reveal about dominant Malay cultural and communal beliefs and perceptions of non-heteronormative behaviours? My broader research on Senario (1996–2013) assessed 66 episodes out of a total of 629 episodes produced across a period of 17 years. Out of these 66 episodes, 'Salah sangka' (Ahmad F. and Anniesafinas 2011) and 'Bina semangat' (Fauzita and Anniesafinas 2007) are two that feature the most explicit non-heteronormative performances. These twoepisodes

will be the focus of our analysis.

I will first introduce the sitcom Senario, followed by a brief discussion of Butlerian gender performativity and a historical overview of male-female actors and characters in traditional art performances within the Malay World. Some of the underlying metaphysical beliefs that allow for certain gender biases to exist will also be discussed to provide clarityon the motivations behind these traditional practices. Adiscussion of notable institutional considerations that went into the production of Senario will be included, before I provide a close textual analysis of select scenes from both episodes that signify effeminate and/or non-heteronormative behaviours.While most societies—if not all—are grappling with these same

undamental concerns resulting from what is essentially a traditional and patriarchal socio-political structure, I contend that the Malay case is somewhat atypical, for there has always been (and still is) a dominant rigid insistence on a traditional, early-twentieth century Malay rubric of identity within an increasingly globalized twenty-first century Malaysia. This will become clear as my analysis progresses." "The special issue collects theoretical and empirical contributions on the capacity of regions to bring out their potential through entrepreneurial and innovative activity. The papers were presented anddiscussed by keynote speakers at the 22nd Uddevalla Symposium, 2019, held in L'Aquila, Italy, at the Gran Sasso Science Institute (GSSI).

Entrepreneurship and innovation have been proven to be strong drivers for regional development and growth. Their uneven distribution in space causes inequality, which tends to persist over time. Investigating the factors and the implications of regional differences in entrepreneurship and innovation is

critical to ensure the appropriate design and implementation of policies aimed at unlocking the potential of regions, and especially of those that are rural, lagging, and peripheral.

The first article in this special issue, by Rolf Sternberg (2022), sheds light on the complex relationship between economic geography and entrepreneurship, analyzed from two perspectives: first, the role of geography within entrepreneurship, followed by the opposite, i.e., the role of entrepreneurship within economic geography. The author highlights that entrepreneurship is, to a large degree, regional, i.e., with strong local geographical connotations, because entrepreneurs are socially embedded in the local environments. However, the opposite is also true, i.e., the economic development of regions is influenced by the type and frequency f entrepreneurial activities.

In a similar vein, Raquel Ortega-Argilés (2022) discusses the relationship between regional entrepreneurship and regional development, with a focus, on one side, on the effect of globalization on localities and its importance for their economic growth and prosperity (Garcilazo et al. 2010; Rodríguez-Pose 2011) and, on the other, on the key role of the local context in shaping entrepreneurship. The crucial role of entrepreneurship as a driver for growth is highlighted alongside the need topromote policies aimed at fostering local entrepreneurship. The paper examines different policy frameworks emerging in different parts of the world and identifies their core elements. Based on the evidence reviewed, the paper contends that both conceptual and policy thinking are increasingly shifting to the challenges faced by the less successful regions in becoming entrepreneurial.

The third contribution by Martin Andersson and Johan Larsson (2022) addresses the same topic but with a different perspective. They focus on how and why a region's industry structure shapes the long-run entrepreneurial character of a region. They argue that the historical industrial development of a place is tightly related to the "industriousness" of its culture and point to local social interactions as one of the mechanisms that fosters the formation, as well as the persistence, of a local entrepreneurial culture. To illustrate this empirically, they employ data on historical voting patterns and local fraction of manufacturing industry across municipalities in Sweden and assess their correlations with present-day entrepreneurial activities. Places with a high share of left-wing votes in the period 1917–1948 have lower rates of new firm formation, less positive public attitudes toward entrepreneurship and a larger average establishment size in the twenty-first century.

ased on key concepts such as digital exposure, age, and entrepreneurship, Ting Zhang, Roger Stough and Dan Gerlowski (2022) investigate how the digitization replacement effect and facilitation effect work together on entrepreneurship. They do so by examining different levels of digital exposure by different types of entrepreneurs. The study sets digitization at the historical intersection with aging and explores how agemodifies the digitization effect in shaping entrepreneurship. Using 132 months of the Current Population Survey data and multilevel modeling—with individual fixed-effects and metropolitan area random effects—the study finds that (1) workers with low- and high-digital exposure are more likely to become entrepreneurs than peers with medium digital exposure,mirroring digitization "push" and "pull" mechanisms on entrepreneurship; (2) age strengthens the "pull" mechanism to be entrepreneurs (versus employees) and opportunity (versus necessity) entrepreneurs; (3)

digital exposure has a weak marginal potential to increase workers' chances to be part-time (versus full-time) entrepreneurs. The study also shows that location matters. Being located in central cities and higher local unemployment rates increase the odds to be entrepreneurs (versus employees) and necessity (versus opportunity)entrepreneurs (although this last result is weaker than the previous one)." The subsequent addition of paper to this trio appears almost accidental in light of how unannounced that inclusion was. This development can be traced to American sinologist Thomas Francis Carter (1882–1925) and his 1925 The Invention of Printing in China and Its Spread Westward. Carter was a scholar of Chinese history and culture who had spent years working in China as a local school superintendent. Sometime in 1921, when he was still based in China, he read
W. J. Clennell's The Historical Development of Religion in China, in which he apparently first encountered the idea of four epoch-making Chinese inventions" (D. C. M. 1931: vii– ix). He was deeply intrigued. The opening paragraph of his ownbook several years later appears to attest to the influence that this idea had on him:

For Lin, as it was for Hu and others, material achievement would in fact create the conditions of possibility for spiritual attainment. "We need to understand that the China of today needs to first have a material civilization," he wrote, "Only then can it speak of a spiritual civilization; only then can it have the spare time and financial resources to preserve national essence" (Lin 1930: 10). In this line of thinking, invention furnished the means by which the material base necessary for higher order spiritual edifices could be raised.

Accomplishments

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Still, in spite of this, a somewhat curious phenomenon arose. The various inventions of the present were all too often overshadowed by those from the past. When it came to providing an account of their country's technoscientific accomplishments, many Chinese would focus on ancientdiscoveries and established traditions rather than more contemporary developments. This was glaringly evident at an exhibition that was held in Shanghai in 1933 in conjunctionwith the Chicago World's Fair. The 1933 world's fair, which took place on the centennial of Chicago's founding, had adopted "science" as its theme and set out to celebrate the corresponding "growth of science, and the dependence of industry on scientific research" over the past century (Official Guide 1933: 11). The exhibition in Shanghai had been put on toshowcase products from around China that were to be sent to Chicago "for people from all around the world to see" (He Kou 1933)

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