



HAL
open science

INSIDE DELIVERY PLATFORMS: THE COVID-19 PANDEMIC AND AFTER

Gilles Paché

► **To cite this version:**

Gilles Paché. INSIDE DELIVERY PLATFORMS: THE COVID-19 PANDEMIC AND AFTER. Journal of Supply Chain Management: Research & Practice, 2020. hal-03041080

HAL Id: hal-03041080

<https://hal.science/hal-03041080>

Submitted on 4 Dec 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

INSIDE DELIVERY PLATFORMS: THE COVID-19 PANDEMIC AND AFTER

Gilles Paché*

CRET-LOG, Aix-Marseille University, France

ABSTRACT

The coronavirus crisis of 2020 has highlighted the fragility of many traditional economic sectors, but also of activities belonging to the field of the collaborative economy. This is particularly true for delivery platforms, which are a component of the “gig economy.” At the worst moment of the COVID-19 pandemic, gig workers acting as independent micro-entrepreneurs for the platforms continued to deliver meals and parcels, despite significant health risks. Once the crisis was over, the European political authorities took drastic social (physical) distancing measures to avoid a second wave of contamination. These measures threaten the model of delivery platforms because gig workers are naturally in direct contact with consumers at home or at work. The new world resulting from the coronavirus crisis could lead to the privileged use of supply chain professionals, and therefore deeply transform the fundamentals of the delivery platform model.

Key words: COVID-19 pandemic; Delivery platform; Europe; Gig economy; Logistics; Social (physical) distancing.

บทคัดย่อ

วิกฤตโคโรนาไวรัสในปี 2020 แสดงให้เห็นถึงความเปราะบางของภาคเศรษฐกิจดั้งเดิมรวมถึงกิจกรรมในเศรษฐกิจแบบแบ่งปัน ซึ่งเป็นความจริงที่ปรากฏแก่แพลตฟอร์มในการจัดส่ง ในช่วงเวลาที่มีการระบาดใหญ่ของโควิด-19 พนักงานในภาคส่วนนี้ซึ่งเป็นเสมือนเจ้าของธุรกิจขนาดย่อมก็ยังจัดส่งอาหารและสิ่งของอยู่ต่อไปทั้ง ๆ ที่เผชิญกับความเสียด้านสุขภาพอย่างมาก เมื่อวิกฤตจบลงฝ่ายการเมืองในยุโรปได้ออกมาตรการในการรักษาระยะห่างเพื่อหลีกเลี่ยงการระบาดระลอกสอง มาตรการนี้ส่งผลกระทบต่อรูปแบบในการจัดส่งเนื่องจากพนักงานต้องมีการสัมผัสโดยตรงกับลูกค้าทั้งที่บ้านหรือที่ทำงาน โลกใหม่ที่เกิดจากวิกฤตโคโรนาไวรัสสามารถนำไปสู่การใช้มืออาชีพในโซ่อุปทานและเป็นการปฏิรูปพื้นฐานของแพลตฟอร์มในการจัดส่งอย่างแท้จริง

Received June 5, 2020; Accepted July 15, 2020

* He is Professor of Retailing and Supply Chain Management at Aix-Marseille University, Aix-en-Provence, France. Member of the Research Center on Transport and Logistics (CRET-LOG) and Director of the University Press of Aix-Marseille, his major interests are network organization, supply chain management and retail operations management. On these topics, Professor Paché has more than 450 publications in the forms of journal papers, books, edited books, edited proceedings, edited special issues, book chapters, conference papers and reports. Email: gilles.pache@univ-amu.fr.

INTRODUCTION

During the spring 2020, the COVID-19 pandemic has affected virtually every country in the world, although it is less virulent in Africa and South America. As underlined by Moritz (2020), compared with other major crisis like tsunamis or earthquakes, “COVID-19 is widespread and global, impacting all regions.” Europe is probably the area most affected by the coronavirus crisis after the United States since its countries account for more than 60% of all COVID-19 deaths. The health disaster is impressive, but its impact is much less dramatic than the Spanish flu, “the mother of all pandemics” (Taubenberger and Morens, 2006), which caused between 50 and 100 million deaths after the WW I, with a case fatality rate of over 25%. If mortality was brought under control in Europe during the COVID-19 pandemic, the reasons for this lie both in the quality of the health systems and in the lockdown policies chosen by the political authorities. Lockdown made it possible to limit the flow of patients in acute respiratory distress arriving in hospitals, thus preventing the demand for care from exceeding the supply of care (Paché, 2020).

On the other hand, it will probably need time before the real evaluation of the economic deflagration induced by the COVID-19 pandemic can be taken, and then move forward. In Europe, sectors such as the automobile, clothing, catering and cultural industries have seen their business volumes fall, or even collapse, in just a few weeks. This was due to lockdown measures, but also to a deep disorganization of global supply chains, paralyzed by failing supplies (Haren and Simchi-Levi, 2020). Paradoxically, very little is written about the crisis that is likely to have a lasting impact on what is known as the collaborative economy, in which individuals play a central role in the management of exchanges, instead of company employees. It is perhaps even the future of some of the forms of the collaborative economy that is directly threatened. One of the most worrying situations to date is certainly that of gig workers as part of platform economy, which the COVID-19 pandemic is totally destabilizing. This research note suggests avenues for reflection on the topic, pointing out that the restrictions imposed by European countries on social contacts after the coronavirus crisis could have a negative impact on the operation of delivery platforms.

GIG ECONOMY TURBULENCES IN SOCIAL (PHYSICAL) DISTANCING TIMES

The gig economy could be translated by the expression “shadow economy” insofar as each micro-entrepreneur, or gig worker, effectively resembles a fleeting “shadow” that appears and disappears quickly (Friedman, 2014), without having any legal link with the platform using its physical capacities from time to time (to make deliveries, drive passengers or clean apartments) (see Box 1). Very concretely, the gig economy refers to a logic of interface management between gig workers as providers of a service and consumers as users of this service, an interface driven by a technological platform using applications for smartphones (Greenwood *et al.*, 2017). The gig economy is driven by two main elements: on the one hand, the rapid development of the collaborative economy, and on the other hand, the progress of new technologies that make it possible to dissociate work from a specific place and time. Ideally, the gig economy model relies on independent micro-entrepreneurs choosing the jobs that interest them, rather than by workers forced to work in a company or administration.

Box 1. At the origins of the gig workers

The gig economy is very broad and encompasses workers who are full-time independent contractors to people who moonlight by driving for Uber or Deliveroo several hours a week. The term “gig” arguably came from the argot of jazz musicians, attested from 1915. In some cases, the gig worker is a small business owner, and in others they are freelancers who are paid to complete discrete projects for larger organizations. Musicians, photographers, writers, truck drivers and tradespeople have traditionally been gig workers. The gig economy suddenly became much more than a curiosity during the financial crisis of 2008-2009. With swaths of the population facing unemployment or underemployment, many workers picked up temporary engagements wherever they could. Some workers were able to hold down a full-time or part-time job but needed to shore up their income. Others cobbled together an income by working a few gigs at once; being able to choose working hours was paramount.

Source: Adapted from John Frazer, *Forbes*, February 15, 2019.

For advocates of the platform economy, gig economy companies provide maximum flexibility in the use of resources needed to deliver a service (Lehdonvirta, 2018). Delivery platforms such as Deliveroo or Uber Eats are thus able to respond to the demands of their clients by adjusting to regional specificities. Table 1 provides key data on the four most dynamic platforms in Europe. However, more critical observers point to the model’s failure in terms of social protection and fair remuneration of gig workers. To the extent that they have the status of independent micro-entrepreneurs, gig workers are also deprived of rights that protect employees, such as trade union rights, legislation on working time and working conditions, and protections against harassment and discrimination. In addition, gig workers are dependent on platforms that may decide to exclude a member by disconnecting it, using sophisticated algorithmic tools to control the activity of each micro-entrepreneur (Wood *et al.*, 2017). Beyond the –sometimes– ideological debates, the gig economy is one of the most dynamic variants of the collaborative economy, widely praised by numerous studies since the contribution of Botsman and Rogers (2011) on collaborative consumption.

Table 1: The Four Dynamic Delivery Platforms in Europe

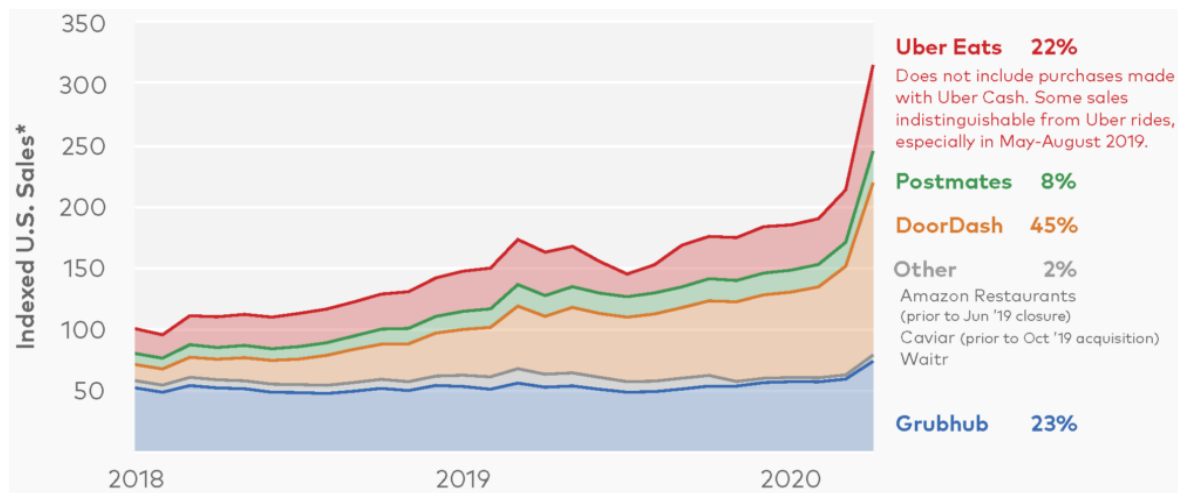
	Deliveroo	Uber Eats	Delivery Club	Eat.ch
<i>Headquarters</i>	London	San Francisco	Moscow	Zurich
<i>Model</i>	Software + feel & logistics	Software + feel & logistics	Software + portal	Software + portal
<i>Funding (million euros)</i>	430	N/A	10.9	N/A
<i>Launch year</i>	2012	2014	2011	2008
<i>Monthly Web users (2017)</i>	7.5 million	3 million	2.4 million	0.6 million
<i>Cumulative app installs (2017)</i>	2.2 million	1.3 million	5.7 million	N/A
<i>Location in Europe</i>	Belgium, France, Germany, Italy, Ireland, The Netherlands, UK, Spain	Austria, France, Belgium, Italy, Poland, Russia, Sweden, The Netherlands, UK, Spain	Russia	Switzerland

Source: Adapted from a Prior Data document, March 2017.

While it has sometimes been claimed that delivery platforms have been the big winners from the lockdown imposed on populations in the spring of 2020 (Rudgard, 2020), given the explosion in the number of home deliveries, in Europe as well as in the USA (see Figure 1),

another more threatening reality arises, in the absence of vaccine for many months: the decline in the economy of delivery platforms, carrying away in the same wave the gig workers. The reason is simple. It can be seen that lockdown exit has been accompanied in Europe by coercive measures never before known to prevent the COVID-19 pandemic from moving forward again. We can speak here of a rigorous organization of the distancing of individuals to avoid a second wave of contagion. The principle of social (physical) distancing is not really new; it was introduced in Missouri as early as October 1918, during the Spanish flu pandemic, by the physician Max C. Starkloff, who suggested a ban on gatherings of more than twenty people (Zelicoff, 2014).

Figure 1: Increased Sales of Delivery Platforms during the Coronavirus Crisis in the USA



* Indexed to meal delivery January 2018 sales (= 100)
 Source: Second Measure document, May 2020.

GIG WORKERS ON THE FRONT LINE

In such the post-crisis context, with a high anxiety content for the consumer, what can be the future of the delivery platform model? The question needs to be asked taking into account the logistical conditions of delivery. Delivery platforms require gig workers to walk up to customer floors, forcing them to touch potentially contaminated intercom systems, door handles or elevator buttons. Generally speaking, there are many situations where orders have to be handled: when the gig worker has to reorganize his/her bag to prevent heavy products from crushing lighter products, or when the gig worker has to pick up two meals for two different customers, which leads to touching the second meal when the first meal is delivered. The *raison d'être* of this disruptive model is to facilitate the business exchange between a (delivery) service provider and the consumer through *interpersonal contact* leading a gig worker to penetrate the recipient's intimate space (home and/or workplace); according to the classification of Salegna and Fazel (2013), the delivery platform model is based on high contact services with a significant amount of customer/server face-to-face interaction. Such interaction can only take place in the presence of a climate of absolute confidence in the gig worker's compliance with health standards, guaranteed by the delivery platform thanks to adequate investments, both tangible and intangible. This is probably not a common situation.

A survey of 120 delivery platforms in 23 countries conducted by the Fairwork Foundation (2020) in April 2020 indicates that during the COVID-19 pandemic, the majority of platforms

provided only vague advice on hygiene and management of “non-contact” delivery, and only half of the platforms reported providing personal protective equipment (e.g. hydroalcoholic gel, face masks). In some cases, the gig workers had to buy the necessary products themselves to reduce the risk of infection in the course of their delivery activity, with the platforms arguing that this was ultimately a personal responsibility, since they are only clients of micro-entrepreneurs (see Box 2). In brief, at the very moment when the coronavirus crisis was reaching its climax in Europe, leading Societies to close down and isolate themselves, gig workers remained on the front line of delivery activities with populations adopting social (physical) distancing. However, the work of gig workers in delivery platforms is totally contradictory to the social (physical) distancing imposed by a lockdown policy. The gig workers interact directly with restaurants and stores, on the one hand, and consumers on the other hand, in public and private spaces. They therefore constitute the *human dimension of delivery platforms*, taking care of the final logistical contact with the consumer.

Box 2. Deliveroo accused of “putting people at risk” during the coronavirus crisis

In a courier to the company, a group of 44 Members of UK Parliament has accused Deliveroo of putting thousands of people at risk by failing to provide personal protective equipment (PPE) to its riders. The company strongly rejected the allegations it put riders or customers at risk and said it had provided PPE to all riders who had requested it. The MPs criticized Deliveroo’s “opt-in” system where riders request PPE if they feel they need it. They said all riders should be provided with masks and hand sanitizer as standard and ordered to use them. Deliveroo courier said Deliveroo’s gig economy business model left riders in a precarious position. “As Deliveroo is increasingly delivering to vulnerable people, it is not only riders that are being put at risk through this questionable business model, but the public as a whole. This work is vital, and it can be done safely.” A Deliveroo spokesperson replied: “At Deliveroo, riders are at the heart of everything we do, and we are working hard to support them during this unprecedented time. This includes distributing PPE kit to riders across the UK, supporting riders financially if they are unwell and keeping riders safe through contact-free delivery.”

Source: Adapted from *The Independent*, May 13, 2020.

Contact with the consumer means that the gig worker enters the intimacy of individuals, which can be more or less easily accepted, even unconsciously. Graziano *et al.* (2019) thus indicate that the brain establishes a buffer zone around the body, for example to maintain visual or auditory attention. The result is a tolerable inter-individual distance, which defines ideal intervals of distance depending on situations, available space or the people with whom the individual is interacting. The intimacy of individuals here refers to a “bubble” within which he/she feels comfortable, and not invaded by the proximity of another individual who may be perceived as aggressive or dangerous. Sorokowska *et al.* (2017) studied the representation of tolerable inter-individual distance in daily life according to national cultures. For all cultures, their conclusion is that the “bubble” expands in the presence of strangers, making interaction difficult, if not impossible. This is the situation that gig workers are likely to face for a long period of time.

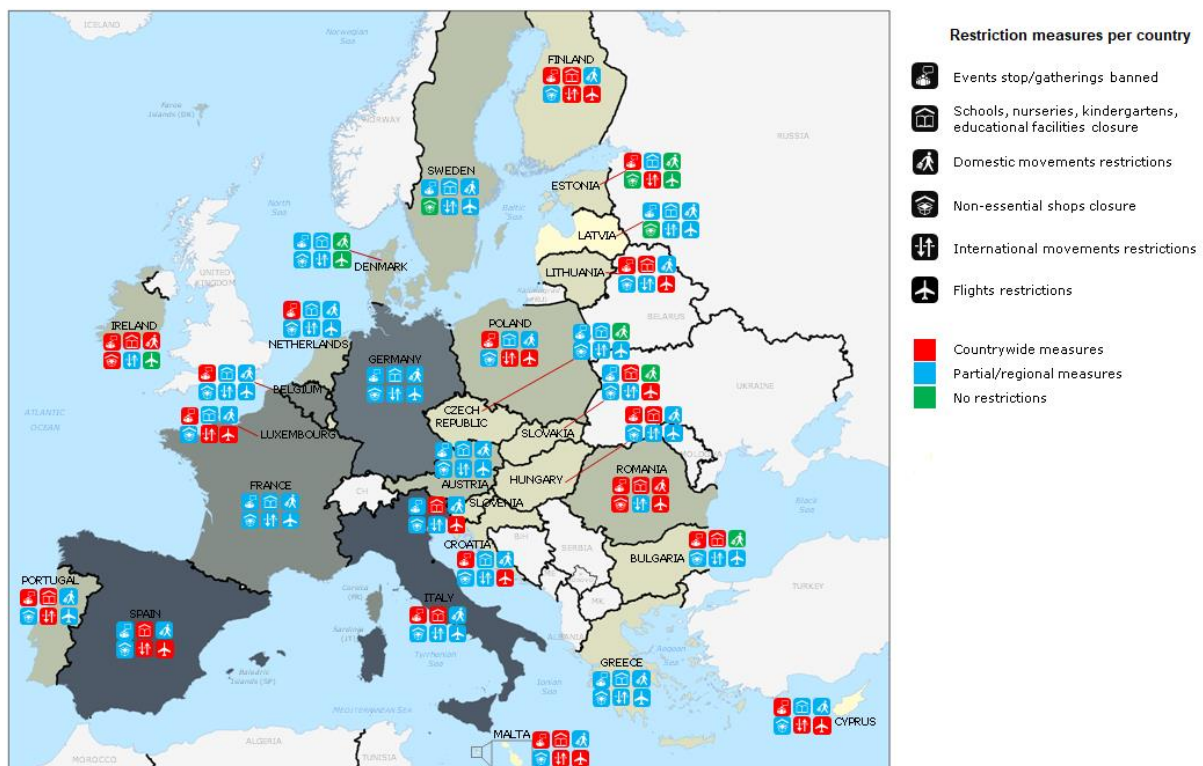
FROM AMATEURS TO SUPPLY CHAIN PROFESSIONALS

As mentioned above, after several weeks of applying lockdown measures, European countries chose to implement a gradual lockdown exit in April and May 2020, and then reopened their borders in order to preserve tourist activities during the summer of 2020. The explicit objective was to slowly restart the economic machine, both by playing on supply (industry) and demand (stores and restaurants). Even if freedom of movement and

consumption have largely been restored, the lockdown exit has created a climate of uncertainty, amplified by government recommendations with a sometimes alarmist tone in terms of social (physical) distancing. For example, in May 2020, the Welsh government published a document entitled *Unlocking our society and economy: continuing the conversation*, which does not hesitate, from its introduction, to evoke the return to a “normal” life, possibly before several years.

In these conditions, how will gig workers survive the coronavirus crisis? If the activity of delivery platforms is not threatened to disappear, the business model is doomed to be profoundly transformed. Indeed, its momentum is likely to be permanently broken by the pandemic and its consequences, mainly for health reasons, with the establishment of a generalized climate of mistrust and fear in social interactions between individuals (Specia *et al.*, 2020). The lockdown exit policies implemented in Europe thus indicate that coercive procedures are today imposed on populations (social/physical distancing, wearing a face mask, use of hydroalcoholic gel, “barrier gestures,” etc.) (see Figure 2). For example, the shopping activity is authorized but with very restrictive conditions of circulation in the stores, with a limited number of consumers and the impossibility of trying on certain products, such as clothing products.

Figure 2: Restriction Measures in the European Union (mid-May 2020)



Source: European Commission document, May 2020.

In brief, social interactions are “under control,” probably for a long period (van Rooij and Kooistra, 2020). This is where the platform model is likely to suffer dramatically in the “next world.” For the very principle of this form of collaborative economy is to rely, as indicated above, on “amateur” micro-entrepreneurs responsible for delivering parcels and other prepared meals. “Amateurs” to whom the user companies, but also and above all the consumers, must absolutely confidence that the health procedures will be respected, at the risk of being propagators of the COVID-19. However, confidence cannot be decreed, it is the

result of a learning process that takes place over a long period of time. This undoubtedly explains the success met in France by the home deliveries organized by McDonald's from May 2020. France is one of the European countries most affected by the COVID-19 pandemic, with more than 30,000 deaths. The success of McDonald's can certainly be explained by the climate of confidence established between the brand and consumers for decades on the respect of the highest sanitary standards in restaurants (Etemad-Sajadi and Rizzuto, 2013).

The coronavirus crisis could thus be a brutal reminder that nothing is better than a supply chain "professional," experienced in the highest quality requirements, particularly in the context of ISO certifications (Bhusithipatkool *et al.*, 2016). This supply chain "professional" will be capable of strictly following complex processes for the production of a secure service to customers; the service provider then plays a key role in the perception of service quality and sends a strong signal of credibility (Tao, 2016). Unlike gig worker, a supply chain "professional" is also linked by a salary contract to his/her company, and he/she has to assume his/her responsibilities at the risk of losing his/her job, and therefore his/her source of remuneration, in the event of a serious breach of contract. Although gig economy has very quickly aroused a great deal of interest, it cannot be ruled out that a tough coronavirus could highlight its limitations and lead to a clear challenge its business model. In June 2020, Uber Eats announced its withdrawal from several markets, including the Czech Republic, Romania and Ukraine in Europe. This is a strong signal that may herald a fundamental shift in the collaborative economy.

CONCLUSION

A long period of time will be needed to take stock of the economic, political and societal transformations brought about by the COVID-19 pandemic. Already, it is clear that the monitoring of global supply chains has been altered, highlighting the structural weaknesses of an unlimited globalization of value chains, as underlined by Grant (2014). In addition to these external shocks, which were widely publicized in the media, the COVID-19 pandemic caused other, more invisible disruptions, the implications of which are nonetheless major. Thus, the gig economy, celebrated as an attractive alternative to traditional modes of industrial organization based on salaried employment, should not emerge unscathed from the coronavirus crisis. This is particularly true for gig workers in delivery platforms, who are suffering the consequences of an increasingly systematic and formalized social exclusion in physical interactions between individuals.

What did we learn from the coronavirus crisis? The main lesson is related to the human facet of logistics management. The coronavirus crisis is forcing delivery platforms to secure last mile management to reassure the consumer. Deliverymen are now used to respecting a social (physical) distancing, and they no longer have the goods receipt signed on a tablet. In this new context, delivery platforms had to adapt their procedures to keep consumers informed through all the channels at their disposal, especially if products are missing or if extended delays are to be expected. Details of delivery procedures are thus a key element in restoring a climate of trust between the consumer and the delivery platform. While logistics had been "industrialized" for several decades, in particular with the automation of order preparation, the platform model was forced to take into account the human dimension that it had long neglected. This is certainly one of the most profound changes that the coronavirus crisis will have generated.

REFERENCES

- Bhusithipatkool, R., Thanathawee, C., & Thongkam, O. (2016). Delivery performance improvement: a case of secure logistics provider. *Journal of Supply Chain Management: Research & Practice*, 10(1), 56-65.
- Botsman, R., & Rogers, R. (2011). *What's mine is yours: how collaborative consumption is changing the way we live*. London: Harper & Collins.
- Etemad-Sajadi, R., & Rizzuto, D. (2013). The antecedents of consumer satisfaction and loyalty in fast food industry. *International Journal of Quality & Reliability Management*, 30(7), 780-798.
- Fairwork Foundation (2020). *The gig economy and Covid-19: Fairwork report on platform policies*. Oxford.
- Friedman, G. (2014). Workers without employers: shadow corporations and the rise of the gig economy. *Review of Keynesian Economics*, 2(2), 171-188.
- Grant, D. (2014). Trends in logistics and supply chain management: a focus on risk. *Journal of Supply Chain Management: Research & Practice*, 8(2), 1-12.
- Graziano, M., Guterstam, A., Bio, B., & Wilterson, A. (2020). Toward a standard model of consciousness: reconciling the attention schema, global workspace, higher-order thought, and illusionist theories. *Cognitive Neuropsychology*, forthcoming.
- Greenwood, B., Burtch, G., & Carnahan, S. (2017). Unknowns of the gig economy. *Communications of the ACM*, 60(7), 27-29.
- Haren, P., & Simchi-Levi, D. (2020). How coronavirus could impact the global supply chain by mid-March. *Harvard Business Review Digital*, February 28. <https://hbr.org/2020/02/how-coronavirus-could-impact-the-global-supply-chain-by-mid-march>.
- Lehdonvirta, V. (2018). Flexibility in the gig economy: managing time on three online piecework platforms. *New Technology, Work & Employment*, 33(1), 13-29.
- Moritz, B. (2020). Supply chain disruptions and COVID-19. *Supply Chain Management Review*, March 27. https://www.scmr.com/article/supply_chain_disruptions_and_covid_19.
- Paché, G. (2020). French hospitals faced with the COVID-19 pandemic: the reality of logistical strategies. *British Journal of Healthcare Management*, 26(6), 1-5.
- Rudgard, O. (2020). Uber's food delivery business surpasses taxis as coronavirus causes travel slump. *The Telegraph*, April 19. <https://www.telegraph.co.uk/technology/2020/04/18/ubers-food-delivery-business-surpasses-taxis-coronavirus-causes>.
- Salegna, G., & Fazel, F. (2013). An integrative approach for classifying services. *Journal of Global Business Management*, 9(1), 1-11.
- Sorokowska, A., Sorokowski, P., Hilpert, P., & Cantarero, K. (2017). Preferred interpersonal distances: a global comparison. *Journal of Cross-Cultural Psychology*, 48(4), 577-592.
- Specia, M., Méheut, C., & Schuetze, C. (2020). In Europe, fear spreads faster than the coronavirus itself. *The New York Times*, February 18. <https://www.nytimes.com/2020/02/18/world/europe/coronavirus-stigma-europe>.
- Tao, K. (2016). To “tangible” intangible service: the buffering effects of service quality cues. *Journal of Global Business Management*, 12(1), 109-120.
- Taubenberger, J., & Morens, D. (2006). 1918 influenza: the mother of all pandemics. *Emerging Infectious Diseases*, 12(1), 15-22.
- van Rooij, B., & Kooistra, E. (2020). How to keep up social distancing after lockdown. *The Conversation*, May 14. <https://theconversation.com/how-to-keep-up-social-distancing-after-lockdown-138370>.

- Wood, A., Graham, M., Lehdonvirta, V., & Hjorth, I. (2019). Good gig, bad gig: autonomy and algorithmic control in the global gig economy. *Work, Employment & Society*, 33(1), 56-75.
- Zelicoff, A. (2014). Influenza surveillance: interrupting transmission. In Oxford, J. (Ed.), *Clinical insights: influenza surveillance* (pp. 67-84). London: Future Medicine.