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Gstrein, Oskar Josef; Kochenov, Dimitry; Zwitter, Andrej

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Document Version

Publisher's PDF, also known as Version of record

Publication date:

2021

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Gstrein, O. J., Kochenov, D., & Zwitter, A. (2021). *A Terrible Great Idea? COVID-19 'Vaccination Passports' in the Spotlight*. (COMPAS Working Paper Series; No. 153). Centre on Migration, Policy and Society (COMPAS), Oxford University.

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Working Paper No. 153

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**Oskar Josef Gstrein
Dimitry Vladimirovich Kochenov
Andrej Zwitter**

www.compas.ox.ac.uk

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The Centre on Migration, Policy & Society
University of Oxford

Authors

Oskar Josef Gstrein

University of Groningen, Campus Fryslân, Data Research Centre

o.j.gstrein@rug.nl

Dimitry Vladimirovich Kochenov

Centre on Migration, Policy and Society (COMPAS), University of Oxford;
Democracy Institute, Central European University, Budapest

KochenovD@ceu.edu

Andrej Zwitter

University of Groningen, Campus Fryslân, Data Research Centre

a.zwitter@rug.nl



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Competing interests: The author(s) declare none.

Abstract

This article looks at central opportunities and drawbacks of the 'passportization' approach to governing the current health emergency. It showcases the complexity of the 'vaccination passports' idea, the technological and organisational difficulties expected during implementation, as well as its regrettable appeal. We provide a comprehensive overview of the ongoing discussion with analysis of arguments relating to the ethical, social and legal perspective. We submit that vaccination passports will not become the main tool in the fight with the COVID-19 crisis and are unlikely to play a positive role in the mitigation of its impact. There is no clear and straightforward connection to safety and security, while their rapid introduction might have similar consequences to opening Pandora's box of discrimination and stigmatization.

Introduction

According to the John Hopkins Coronavirus Resource Centre, there are more than 117 million of registered COVID-19 cases globally as of 9 March 2021, resulting in more than 2.6 million registered COVID-19 related fatalities.¹ While the pandemic can be categorised as the most serious global health crisis in decades,² it will also produce far-reaching long-term effects reshaping the political, economic, legal and other domains.³ COVID-19 might also redraw the maps of the world via comprehensive restrictions of mobility, tourism and migration that potentially mark ‘an end of an age’.⁴ Given the national focus of the responses and mitigation strategies, which put the World Health Organisation (WHO) or regional organizations like the European Union (EU) on the sidelines,⁵ the compartmentalisation of the world into states could never be more articulate as a lived experience than throughout the last year.

This paper focuses on one of the strategies to mitigate the impact of COVID-19, pushed under the banner of a ‘medical requirement’,⁶ to quote one of its key supporters, European Commission President Ursula von der Leyen. We focus on the so-called ‘vaccination passports’ to inject some complexity into the on-going debate, thus following a number of colleagues, including Alberto Alemanno, Luiza Bialasiewicz and others.⁷ In the world of ‘passport

1 John Hopkins University, ‘COVID-19 Map’ (*Johns Hopkins Coronavirus Resource Center*) <https://coronavirus.jhu.edu/map.html> accessed 9 March 2021.

2 P Chamboredon, C Roman and S Colson, ‘COVID-19 Pandemic in France: Health Emergency Experiences from the Field’ (2020) 67 *International Nursing Review* 326, 327.

3 For discussion of the respective fields see e.g. Alberto Alemanno, ‘Taming COVID-19 by Regulation: An Opportunity for Self-Reflection’ (2020) 11 *European Journal of Risk Regulation* 187; Hans-W Micklitz, ‘The COVID-19 Threat: An Opportunity to Rethink the European Economic Constitution and European Private Law’ (2020) 11 *European Journal of Risk Regulation* 249; Alessio M Paces and Maria Weimer, ‘From Diversity to Coordination: A European Approach to COVID-19’ (2020) 11 *European Journal of Risk Regulation* 283.

4 Alan Gamlen, ‘Migration and Mobility after the 2020 Pandemic: The End of an Age?’ (2020) WP-20-146 Centre on Migration, Policy and Society Working Papers 25.

5 For a detailed account of the global reaction to the COVID pandemic in terms of changing immigration regulations and the suppression of human rights, see the Verfassungsblog symposium convened by Joelle Grogan, ‘Introduction & List of Country Reports’ [2020] Verfassungsblog https://intr2dok.vifa-recht.de/receive/mir_mods_00008563 accessed 16 February 2021.

6 Suzanne Rowan Kelleher, ‘These European Countries Are Launching Vaccine Passports’ (*Forbes*, 5 February 2021) <https://www.forbes.com/sites/suzannerowankelleher/2021/02/05/these-european-countries-are-launching-vaccine-passports/> accessed 7 February 2021.

7 Alberto Alemanno and Luiza Bialasiewicz, ‘Covid-19 : « Le passeport vaccinal européen, une idée au mieux prématurée, au pire irréfléchie »’ *Le Monde.fr* (26 January 2021)

apartheid',⁸ any new passport, electronic or physical, necessary or optional is always an addition to the list of the grounds of possible exclusion and discrimination: to exclude, in the name of an illusion of control, is among the passport's main functions.⁹ Knowing this, the assessment of any vaccination passport merits critical scrutiny: too much in terms of the loss of rights is at stake, when a new boundary dividing societies is drawn for any reason whatsoever, however 'natural' and 'necessary'.¹⁰ Given the far-reaching societal 'world-making' impact of any new boundary enforced by law, this consideration is an imperative starting point for the assessment of any legal-political initiative capable of creating such a boundary, like a vaccination passport.¹¹

While continuously increasing capabilities to create, share, store and analyse data have been essential to develop medical responses to COVID-19 with unprecedented speed,¹² an incredible amount of data-driven measures to mitigate and manage the impact of the pandemic have emerged at the same time. These programs typically use Big Data to analyse and manage the behaviour of a population.¹³ The purposes of these efforts include the enforcement of self-isolation through persistent monitoring using cell phone tower data and location data (e.g. satellite-based navigation in mobile devices), the modelling of flows to understand the movements of individuals and groups in order to isolate potentially infected groups, the development of apps for mobile phones using Bluetooth to facilitate digital

https://www.lemonde.fr/idees/article/2021/01/26/covid-19-le-passeport-vaccinal-europeen-une-idee-au-mieux-prematuree-au-pire-irreflechie_6067602_3232.html accessed 16 February 2021; Dakota Gruner, 'Immunity Certificates: If We Must Have Them, We Must Do It Right' [2020] COVID-19 Rapid Response Impact Initiative 28; HR Hasan and others, 'Blockchain-Based Solution for COVID-19 Digital Medical Passports and Immunity Certificates' (2020) 8 IEEE Access 222093.

⁸ Dimitry Kochenov, 'Ending the Passport Apartheid. The Alternative to Citizenship Is No Citizenship—a Reply' [2020] I-CON (forthcoming) <https://www.ssrn.com/abstract=3756569> accessed 16 February 2021.

⁹ John Torpey, *The Invention of the Passport: Surveillance, Citizenship and the State* (Cambridge University Press 1999)

¹⁰ Dimitry Kochenov, *Citizenship* (MIT Press 2019); Joseph Carens, *The Ethics of Immigration* (Oxford University Press, 2013)

¹¹ Pierre Bourdieu, 'Social Space and Symbolic Power' (1989) 7 *Sociological Theory* 14, 14–25.

¹² Philip Ball, 'The Lightning-Fast Quest for COVID Vaccines — and What It Means for Other Diseases' (2020) 589 *Nature* 16.

¹³ Andrej Zwitter and Oskar J Gstrein, 'Big Data, Privacy and COVID-19 – Learning from Humanitarian Expertise in Data Protection' (2020) 5 *Journal of International Humanitarian Action* 4; Chuncheng Liu and Ross Graham, 'Making Sense of Algorithms: Relational Perception of Contact Tracing and Risk Assessment during COVID-19' (2021) 8 *Big Data & Society* 205395172199521, 4.

contact tracing, the establishment of digital communication and information platforms, as well as tests for the self-evaluation of symptoms.¹⁴

This is the context in which vaccination passports – also being referred to as immunity passports or immunity certifications – should be placed. While the terms are being used virtually interchangeably at the moment, such credentials could allow their holders to prove their health status when requested by the authorities worldwide.¹⁵ As long as vaccines against the new types of coronavirus seemed out of reach and the process of immunisation against COVID-19 was poorly understood, organisations such as the WHO were careful not to recommend the use of vaccination passports.¹⁶ However, as the landscape incrementally changes the rapid and large-scale development and implementation of such specialised passports is viewed as capable of supporting the long-term management of the pandemic in the years to come.

The promise of these passports is that their holders will be returning to ‘normal’ life relatively quickly – subject to the act of immunization such a document would attest to. According to the British Royal Society, their purpose is ‘to aid the return to pre-COVID-19 activities and allow travel without compromising personal or public health.’¹⁷ Multiple parallel and sometimes associated initiatives to develop and implement them are currently underway, pursuing a chorus of varying objectives. Some are focused on the reduction of risk of international travel, return to work routines without physical distancing, or making possible the organisation of

14 Taís Fernanda Blauth and Oskar Josef Gstrein, ‘Data-Driven Measures to Mitigate the Impact of COVID-19 in South America: How Do Regional Programmes Compare to Best Practice?’ [2021] International Data Privacy Law 2 <https://doi.org/10.1093/idpl/ipab002> accessed 1 March 2021.

15 Ana Beduschi, ‘Digital Health Passports for COVID-19: Data Privacy and Human Rights Law’ (University of Exeter 2020) Policy Brief 5 https://socialsciences.exeter.ac.uk/media/universityofexeter/collegeofsocialsciencesandinternationalstudies/lawimages/research/Policy_brief_-_Digital_Health_Passports_COVID-19_-_Beduschi.pdf accessed 7 February 2021.

16 Alexandra L Phelan, ‘COVID-19 Immunity Passports and Vaccination Certificates: Scientific, Equitable, and Legal Challenges’ (2020) 395 The Lancet 1595.

17 The Royal Society, ‘Twelve Criteria for the Development and Use of COVID-19 Vaccine Passports’ (The Royal Society 2021) DES7385 1 <https://royalsociety.org/-/media/policy/projects/set-c/set-c-vaccine-passports.pdf?la=en-GB%26hash=A3319C914245F73795AB163AD15E9021> accessed 4 March 2021.

live events with large audiences.¹⁸ The technologies suggested to reach these objectives differ as well, with the spectrum ranging from classical paper-based documents to decentralised digital systems modelled after the paradigm of ‘self-sovereign identity’.¹⁹ As organisations such as the EU scramble to standardise the processes among their member states with the announcement of an EU ‘Digital Green Pass’ on 1 March 2021,²⁰ smaller regions such as Bavaria in Germany already started with the implementation of pilots at the time of writing.²¹ Countries such as Australia, Denmark, Greece, Israel and Sweden have confirmed making vaccine certificates part of their strategy going forward,²² with some of them looking at the ability to have bilateral agreements for travel.²³ As the public attention grows private organisations such as the International Air Transport Association (IATA), IBM, or the World Economic Forum (WEF) are actively working on their own projects.²⁴ This includes some airlines running pilot projects on specific routes, including Cathay Pacific between Singapore and Hong Kong and United Airlines between New York and London.²⁵

18 Hannah Kuchler, ‘Health and Tech Groups Aim to Create Digital Covid “Vaccination Passport”’ (14 January 2021) <https://www.ft.com.proxy-ub.rug.nl/content/cf971639-3836-4c2b-93f6-622d4e0846ad> accessed 7 February 2021.

19 Hasan and others (n 7).

20 Michael Peel and Alice Hancock, ‘EU Plans Digital Vaccine Passports to Boost Travel’ (1 March 2021) <http://www.ft.com/content/b038316f-4c58-4667-810d-efe48f54a927> accessed 2 March 2021.

21 Nadine Cibu, ‘Altöttinger Impfbescheinigung mit Digitaler Schranke gesichert’ (BR24, 25 January 2021) <https://www.br.de/nachrichten/bayern/landkreis-altoetting-stellt-digitale-impfbescheinigung-aus.SMnsHhp> accessed 7 February 2021.

22 James Massola, ‘Morrison Government Readies Rollout of Vaccine Certificates’ (*The Sydney Morning Herald*, 6 February 2021) <https://www.smh.com.au/politics/federal/jab-and-go-morrison-government-readies-rollout-of-vaccine-certificates-20210205-p56zv7.html> accessed 7 February 2021;

Oliver Holmes and Quique Kierszenbaum, ‘Covid: Vaccinated Israelis to Enjoy Bars and Hotels with “Green Pass”’ (*the Guardian*, 19 February 2021) <http://www.theguardian.com/world/2021/feb/19/covid-vaccinated-israelis-to-enjoy-bars-and-hotels-with-green-pass> accessed 21 February 2021; Stephanie Höppner, ‘Sweden and Denmark to Introduce Digital Vaccination Certificate | DW | 16.02.2021’ (DW.COM, 16 February 2021) <https://www.dw.com/en/sweden-and-denmark-to-introduce-digital-vaccination-certificate/a-56592616> accessed 28 February 2021; Peel and Hancock (n 20).

23 Peel and Hancock (n 20).

24 Tariro Mzezewa, ‘Coming Soon: The “Vaccine Passport” - The New York Times’ (4 February 2021) <https://www.nytimes.com/2021/02/04/travel/coronavirus-vaccine-passports.html?smid=fb-nytimes&smtyp=cur> accessed 7 February 2021.

25 David Walsh, ‘Do We Need “vaccine Passports” to Get Europe Moving Again?’ (*euronews*, 11 December 2020) <https://www.euronews.com/travel/2020/12/11/do-we-need-coronavirus-vaccine-passports-to-get-the-world-moving-again-euronews-asks-the-e> accessed 7 February 2021.

Numerous questions arise, however, about the desirability of vaccination passports. Those who do not have them – especially at the early stages of the global inoculation effort – will obviously not be entirely excluded from the benefits they are designed to provide, calling the early introduction of such passports into question: why bother at this stage when only a micro share of the population is inoculated? However, the picture is bound to change dramatically as the scale of global vaccinations will grow. Going forward, such exclusion would not only lead to an infringement of fundamental human rights of people with acute allergies, pregnant women and all others, for whom vaccination is not an option for medical, religious or other reasons. Their introduction would also create tensions with groups who deny the benefits of inoculation efforts. From a scientific perspective, the thinking behind the ‘passports’ disregards fundamental virological and epidemiological questions the answers to which do not seem to be beyond doubt at this stage, such as whether one vaccine provides protection against several strains (‘mutations’) of the SARS-CoV-2 virus, how long inoculation is effective, and to what extent inoculated people can still spread the virus despite their immunity.

Related concerns emerge out of the fact that vaccinations – and thus the distributions of the ‘passports’ attesting to them – are far from a-political: Hungary, Slovakia and the Czech Republic plan to use the Russian Sputnik V vaccine, which appears to be as effective as many of its competitors based on building scientific evidence,²⁶ but enjoys lesser prestige in the EU. The response from some EU governments, especially the Polish, has been that non-EU approved vaccines are unacceptable.²⁷ Whether they are legally authorized for use in the EU Member States where they are being administered, as well as the scientific data on their effectiveness is thus beyond the point. Therefore, immunity certification based on such vaccines might not be considered as valid. Many vaccines are at different stages of development and already the Sputnik V controversy highlights some of the frictions a vaccination passport can create in the social, political, economic and legal domains. The Hungarian government’s reply to the Polish was to suggest issuing vaccination passports *without* specifying the type of the vaccine used. Yet, the political will of other governments to accept such certifications as valid is not a given. From the outset, the choice of

26 Ian Jones and Polly Roy, ‘Sputnik V COVID-19 Vaccine Candidate Appears Safe and Effective’ (2021) 397 *The Lancet* 642.

27 Reuters, ‘Poland Does Not Plan to Buy Russian Vaccine, Says Minister’ *Reuters* (4 March 2021) <https://www.reuters.com/article/us-health-coronavirus-poland-russia-idUSKBN2AWIWC> accessed 5 March 2021.

governments for or against vaccination passports puts them in a position between Scylla and Charybdis. On the one side, the passports could actually help solve important problems. Consequently, failing to introduce them as soon as possible could offer an example of executive underreach.²⁸ On the other, if such passports are more about politics than science and do not provide a necessary precondition for what they purport to unlock, why bother rolling them out at a huge social and economic cost?

In this article, we provide a comprehensive overview of the ongoing discussion and present arguments relating to the ethical, social and legal perspective. This includes consideration of topics such as fairness and discrimination, as well as the impact of vaccination passports on privacy and free movement. We also consider questions around the governance and potential social impact of this instrument. Based on this interdisciplinary analysis we evaluate the benefits and risks of vaccination passports. While it is challenging to present definitive findings on this emerging topic, we conclude that it remains unlikely that vaccination passports will become an essential part of the strategy of fighting against COVID-19. The discussion around them might positively influence the establishment of more modern and robust digital identity infrastructures in the mid- to long-term. However, the successful short-term implementation of vaccination passports is not only dependent on technological changes; it also requires sound and properly prepared governance frameworks that take historic lessons of identification and citizenship into account.

Technological context of digital identity management

Vaccination passports are a technology to categorise and track individuals. Therefore, they can become a tool for ‘mass surveillance’.²⁹ This section briefly outlines relevant historic experiences in the area with a focus on recent developments around digital identity management.

²⁸ David E Pozen and Kim Lane Scheppelle, ‘Executive Underreach, in *Pandemics and Otherwise*’ (2020) 114 *American Journal of International Law* 608.

²⁹ On the limited capabilities of this term from a legal perspective cf. Oskar Josef Gstrein, ‘Mapping Power and Jurisdiction on the Internet through the Lens of Government-Led Surveillance’ [2020] *Internet Policy Review* 7–8 <https://policyreview.info/articles/analysis/mapping-power-and-jurisdiction-internet-through-lens-government-led-surveillance> accessed 4 October 2020.

1. Surveillance, tracking and identification during and after the pandemic

Being able to permanently track and identify people on mass-scale is usually met with suspicion in those societies who believe in the importance of individual rights. However, in public emergencies that threaten human lives and/or the perceived continuous existence of a nation it is not unusual that governments rely on increased surveillance and tracking. International law and most national legal systems allow states to temporarily derogate from certain guarantees (e.g. non-absolute human rights such as privacy), as long as the restrictive measures are strictly required and not inconsistent with other obligations under international law/core understanding of domestic constitutional principles.³⁰ In recent history, measures to prevail in a state of national emergency are frequently tied to digitalisation. This has been described as technological 'solutionism'.³¹ For example, the 2001 attacks on the World Trade Center in New York sparked the rapid implementation of data retention programmes in and outside the United States. These measures are frequently referred to as 'bulk surveillance' or 'mass surveillance' activities, since the systems are storing very large amounts of telecommunication data documenting phone and internet usage. Ultimately, their unprecedented capabilities and a lack of appropriate governance (including effective legal safeguards and individual remedies) led to the revelations of *Edward Snowden* that started in 2013.³² As the danger for national security through looming 'terror' attacks had become less imminent, it crystallised that the nature of surveillance itself had changed.

About the same time the 2001 attacks occurred, *Haggerty* and *Ericson* proposed that surveillance was becoming less of a tool to discipline and punish the poor and marginalised, which traditionally is limited to certain physical environments that are heavily controlled (e.g. *Bentham's* 'prison panopticon'). Furthermore, increasingly autonomous technology meant that surveillance became gradually less dependent on human guidance and supervision. Rather, the different surveillance systems (e.g. video cameras, audio sensors, telecommunication records, and open-source

³⁰ Zwitter and Gstrein (n 13) 3.

³¹ Evgeny Morozov, 'Dat Big Tech een pandemie moet oplossen is het politieke probleem van deze tijd' (*De Correspondent*, 20 April 2020) <https://decorrespondent.nl/11146/dat-big-tech-een-pandemie-moet-oplossen-is-het-politieke-probleem-van-deze-tijd/16670845468068-b82823e2> accessed 28 February 2021.

³² Gstrein (n 29) 1–2.

intelligence data collected on the Internet) seemed to transform into an independent 'surveillance assemblage'. The huge amounts of digital data produced by an army of connected sensors and systems enabled the controllers to govern the actions of others without territorial restraints.³³ Seen through this perspective, it is hard to ignore the question of whether the current wave of digital surveillance measures developed to respond to the pandemic remains bound to the purpose of fighting COVID-19, or whether the new systems will further augment already existing surveillance assemblages in place to monitor the population once this pandemic is over.³⁴

2. Recent developments in Digital Identification

'Modern governance rests on the assumption that the government must know its population and, in order to improve life, be able to productively influence the behaviour of individuals.'³⁵ Indeed, this has always been the essence of 'Seeing Like a State',³⁶ which played a huge role not only in the production of the state itself, but also of its subjects.³⁷ This process is ongoing, new technologies often repeating the mistakes and amplifying the dangers known from the past. While citizens and residents of wealthy nations often take for granted that comprehensive personal registers exist, this is frequently not the case in poorer countries with less robust public administration. Hence, in order to upgrade existing systems and facilitate the control of the population, countries such as India have been working hard over more than a decade to implement new digital identities that typically use large amounts of biometric data to facilitate registration and identification. However, the rapid mass implementation of the Indian systems also comes with a record of concerns around fairness, discrimination, privacy, autonomy and other issues that lead to doubts about whether such identification systems promote human dignity in the

33 Maša Galič, Tjerk Timan and Bert-Jaap Koops, 'Bentham, Deleuze and Beyond: An Overview of Surveillance Theories from the Panopticon to Participation' (2017) 30 *Philosophy & Technology* 9, 20–24.

34 Fan Wang, '武汉一周年：新冠疫情受控背后中国的“制度优势”与个体代价 - BBC News 中文' (29 December 2020) <https://www.bbc.com/zhongwen/simp/chinese-news-55446341> accessed 7 February 2021.

35 Ursula Rao and Vijayanka Nair, 'Aadhaar: Governing with Biometrics' (2019) 42 *South Asia: Journal of South Asian Studies* 469, 73.

36 James C Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, Yale Univ Press 2008).

37 Juliette Cadiot, 'Searching for Nationality: Statistics and National Categories at the End of the Russian Empire (1897-1917)' (2005) 64 *The Russian Review* 440, 440; Eugen Weber, *Peasants into Frenchmen: The Modernization of Rural France; 1870 - 1914* (Palo Alto, Stanford Univ Press 2007).

end.³⁸ The past century offers plenty of similar examples of varying intensity relying on different technologies, but posing, essentially, identical questions.³⁹

At the same time, the increased dependency on private digital platforms such as Google and Facebook on the one hand, combined with the need for more information security due to criminal activities based on 'identity theft' (e.g. stealing names, addresses, passwords or bank account details to abuse them for crimes) on the other hand, spark the desire to explore innovative digital identity management schemes.⁴⁰ Newly designed systems aim at increasing the autonomy of individuals by strengthening standardisation and decentralisation of digital identity management. The most radical are 'self-sovereign identity' projects which build on distributed-ledger technologies such as the Bitcoin Blockchain or Ethereum.⁴¹ A self-sovereign identity can be defined as 'a model of digital identity where individuals and entities alike are in full control over central aspects of their digital identity, including their underlying encryption keys; creation, registration, and use of their decentralized identifiers [. . .] The architecture gives individuals and entities the power to directly control and manage their digital identity without the need to rely on external authorities'.⁴²

For this article, it is not necessary to delve further into the technical details and concepts of such systems. However, it needs to be emphasized that the establishment of any new digital identification systems – including vaccination passports – will have to position itself in this landscape of increasing digitalisation of identity management. Hence, it is also not surprising that the WHO has partnered with Estonia to explore the design

38 Oskar Gstrein and Dimitry Kochenov, 'Blockchain and Citizenship: Uneasy Bedfellows' in Oreste Pollicino and Giovanni De Gregorio (eds), *Blockchain and Public Law* (Edward Elgar 2021).

39 Al'bert Kašfullovič Bajburin, *Sovetskij pasport: istorija - struktura - praktiki* (Izdatel'stvo Evropejskogo Universiteta v Sankt-Peterburge 2017).

40 Andrej J Zwitter, Oskar J Gstrein and Evan Yap, 'Digital Identity and the Blockchain: Universal Identity Management and the Concept of the "Self-Sovereign" Individual' (2020) 3 *Frontiers in Blockchain* 2–3 <https://www.frontiersin.org/articles/10.3389/fbloc.2020.00026/full> accessed 28 October 2020.

41 *ibid.*

42 Kai Wagner and others, 'Self-Sovereign Identity - A Position Paper on Blockchain Enabled Identity and the Road Ahead' (Blockchain Bundesverband 2018) 27 <https://www.bundesblock.de/wp-content/uploads/2019/01/ssi-paper.pdf> accessed 8 February 2021.

of digital vaccination certificates,⁴³ which is one of the frontrunners in developing digital identification systems.⁴⁴

Ethical, Social and Legal Perspectives

This section outlines ethical, social and legal perspectives on the rapid development and mass adoption of vaccination passports. It includes analysis and discussion relating to the topics of social inequality, fairness, power, governance, and trust. Since there is hardly any empirical evidence describing societal impact at the time of writing, we have decided to merge the ethical with the social perspectives. Our findings are informed by lessons-learned from similar past programs, expert opinions, related literature, as well as early experiences with data-driven measures adopted since the outbreak of COVID-19 (e.g. digital contact tracing apps). The legal section focuses on concerns around privacy and autonomy, discrimination and free movement.

1. Ethical and social perspectives

a. One of many strategies

Vaccination passports are only a subset of the potential strategies to mitigate the impact of the pandemic on the political, economic and related social domains. The benefits and costs of adopting any of these strategies has to be considered against other measures which are readily available and proportionate. Specifically, this can include the setup of widely and easily available testing capabilities with quick results (e.g. 'PCR' or polymerase chain reaction tests), the obligatory use of face masks, restriction of movement or lockdowns and/or continued physical distancing as well as other hygiene and spread prevention measures.⁴⁵ However, it must be borne in mind that the establishment of such a 'new normal' comes with severe restrictions of individual freedoms and opportunities, as well as immense consequences for social, political, economic, and cultural life.⁴⁶

43 John Miller and Stephanie Nebehay, 'WHO Looks at Possible "e-Vaccination Certificates" for Travel' *Reuters* (3 December 2020) <https://www.reuters.com/article/health-coronavirus-who-passports-int-idUSKBN28D11Q> accessed 8 February 2021.

44 Gstrein and Kochenov (n 38).

45 Teck Chuan Voo and others, 'Immunity Certification for COVID-19: Ethical Considerations' (2021) 99 *Bulletin of the World Health Organization* 155, 157.

46 Deutscher Ethikrat, *Immunitätsbescheinigungen in der Covid-19-Pandemie Stellungnahme* (2020)

The idea of vaccination passports is particularly appealing in a situation where it is proven that sustainable exit strategies such as highly effective vaccines exist. Any other scenario resulting in the certification of immunity, such as the use of serology tests to identify antibodies ('antigens') to SARS-CoV-2, seems too complex and unreliable from a scientific perspective.⁴⁷ Accordingly, the British Royal Society stated that vaccination passports are 'certificates to establish proof of vaccination linked to the identity of the holder.'⁴⁸ Nevertheless, in the announcement of the EU's 'Digital Green Pass' from 1 March 2021, Commission president von der Leyen mentioned that this pass will not only provide proof of inoculation, but also contain information on test results of those not yet jabbed, and information on the holder's recovery if they previously had the disease.⁴⁹

b. Social inequality and Fairness

Once vulnerable groups – such as inhabitants and workers in care homes or persons over 65 years – have been vaccinated or otherwise protected,⁵⁰ the question of how the vaccines should be distributed further emerges. From a utilitarian perspective one could argue that the 'greater good' is best served by prioritizing vaccine passports based on an assessment using factors such as social status, age, health and economic determinants. Ideally, vaccines would be widely available in all parts of the world and for all parts of the population. In practice however, even in well-governed countries the campaigns to inoculate the population pose a considerable challenge.⁵¹ This raises the general debate of global justice, which with the

<https://www.ethikrat.org/fileadmin/Publikationen/Stellungnahmen/deutsch/stellungnahme-immunitaetsbescheinigungen.pdf> accessed 7 February 2021.

47 Henry T Greely, 'COVID-19 Immunity Certificates: Science, Ethics, Policy, and Law' (2020) 7 *Journal of Law and the Biosciences* 4–13 <https://doi.org/10.1093/jlb/ljaa035> accessed 7 February 2021.

48 The Royal Society (n 17) 1.

49 Peel and Hancock (n 20).

50 Deutscher Ethikrat, 'Ad Hoc Recommendation: Special Rules for Vaccinated People?' (*Ad hoc*, 4 February 2021) https://www.ethikrat.org/en/publications/publication-details/?tx_wwt3shop_detail%5Bproduct%5D=150&tx_wwt3shop_detail%5Baction%5D=index&tx_wwt3shop_detail%5Bcontroller%5D=Products&cHash=823d98f02728e258468368f3d2b686ed accessed 16 February 2021; Parliamentary Assembly Council of Europe, 'Covid-19 Vaccines: Ethical, Legal and Practical Considerations' (*Covid-19 vaccines: ethical, legal and practical considerations*, 26 January 2021) <<https://pace.coe.int/en/files/28925/compendium> accessed 1 March 2021.

51 Melissa Eddy and Marc Santora, 'E.U.'s Mass Vaccination Campaign Starts, With Nursing Homes as Focus' *The New York Times* (27 December 2020) <https://www.nytimes.com/2020/12/27/world/europe/covid-19-eu-vaccine.html> accessed 16 February 2021.

rise of vaccine nationalism has lost much of its practical application despite its theoretical appeal. With the majority of the world supply of vaccines in the hands of economic superpowers, such a fair vaccine distribution seems out of the question. Additionally, quick implementation of vaccination passports to reinstate international travel and commerce relies on relatively technology heavy infrastructures (e.g. smartphones, reliable connectivity). Therefore, the digital divide would further add to exacerbating inequalities on a global scale. In essence, in terms of utilitarian ethics, there is definitely no clear-cut answer and solutions would have to deal with negative externalities.

Even in European states that by and large aim to introduce vaccinations free of charge for all their citizens, the question of whom to vaccinate first and its socio-economic consequences are undeniable. Prioritising older over younger generations might be fully supported by the increased vulnerability to severe illness and the resulting threat of overwhelmed intensive care units. At the same time, temporarily withholding vaccination from younger generations can have negative economic consequences (e.g. slowed restart of businesses, decreased productivity of working parents with home-schooling duties), negative societal consequences (marginalised socio-economic groups with a high proclivity of unemployment becoming even more unemployable), and eventually negative political consequences (e.g. young, unemployed people radicalising and searching for a valve for their frustration).

If the necessary resources to fulfil the conditions to provide protection are scarce, valid concerns arise that certification of immunity might as such emerge as an additional factor to increase inequality.⁵² Indeed, in a detailed opinion on the ethical implications of immunity certifications from 22 September 2020, the members of the independent German Ethics Council could not come to a unanimous position regarding the usefulness of immunity certificates. One group of the members of the council concluded that the implementation of such certifications would be useful to reopen certain parts of society more quickly, hence increasing the overall level of freedom. To the contrary, the other group stated that institutionally it would be unfair to establish a gap between those already inoculated and certified, whereas the rest of society remains severely restricted.⁵³ This latter group went on to demand that policymakers ensure the availability and

⁵² Voo and others (n 45) 158.

⁵³ Deutscher Ethikrat (n 46) 9–10.

affordability of COVID-19 tests and vaccines to the whole population before any large-scale deployment of (digital) health certificates. It should be noted that this statement only relates to the potential situation in Germany, a country that can be considered as comparatively wealthy and well administered in relation to other Member States of the EU and most countries worldwide. Hence, it only seems likely that the risk of potential stigmatisation increases across countries and particularly those regions of the world that are less wealthy.

c. Questions of power and governance

This concern is shared by a group of experts convened by the British Ada Lovelace Institute. It urged the government in February 2021 to act swiftly and produce clear and specific guidelines that clarify the place vaccination passports should have in society.⁵⁴ From the perspective of deontological ethics, choices need to be made whether and to what extent there should be a

- Duty/right of a government to implement vaccination passports;
- Duty of each individual to hold and present such passports;
- Right to include/exclude people with/out such a document from public, social and/or economic life.

These questions and their answers are by no means benign and they need to be addressed in detail. The deontological ethical question of establishing a duty or a right of a government to implement such a measure that has definitive potential to cause at least temporary inequalities (until a vast majority is immunised) strikes at the heart of the principle of the rule of law. In continental positivist law conceptions, a government may only do what is explicitly provided for by law, the ultimate cause of all law (*Hans Kelsen's* 'Urnorm') being traced back to the principle that agreements must be kept (*pacta sunt servanda*).⁵⁵ Contrary to that is the postulate of *Carl Schmitt's* political theology, which finds the ontological justification of law not in the *Urnorm* but in the political when stating that precisely the capability to

⁵⁴ Ada Lovelace Institute, 'What Place Should COVID-19 Vaccine Passports Have in Society?' (Ada Lovelace Institute 2021) 4 <https://www.adalovelaceinstitute.org/summary/covid-19-vaccine-passports/> accessed 21 February 2021.

⁵⁵ Hans Kelsen, *Reine Rechtslehre: mit einem Anhang, Das Problem der Gerechtigkeit* (Deuticke 1983).

establish the exception makes one sovereign.⁵⁶ COVID-19 and the resulting state of emergency declarations have resulted in similar fundamental discussions, because an enduring state of exception is in and of itself an exception, as it establishes a 'new normal'.

To add an additional layer of complexity to the picture, it seems very likely that there will be different consequences of the deployment of vaccination passports for the private and public sector. At least the German Ethics Council emphasizes the autonomy of private actors (e.g. airlines, restaurants, maybe football clubs) to restrict access to premises or services for those who do not possess valid vaccination passports.⁵⁷ Finally, as demonstrated by the much discussed rollout of digital contact tracing apps, the question of sovereignty does not only appear in the traditional relationship between governments and citizens/residents, but also when it comes to 'cooperation' of powerful actors dominating cyberspace, such as Apple and Google.⁵⁸

d. Trust

Clear guidelines, rules and implementation practices based on commonly shared values are key to the success of any data-driven intervention of governments to mitigate the pandemic. The Parliamentary Assembly of the Council of Europe adds to this aspect that it must be ensured that citizens are informed that the vaccination is voluntary and that no one is politically, socially, or otherwise pressured to get themselves vaccinated, if they do not wish to do so themselves.⁵⁹ As has been demonstrated by a discussion and analysis of the success of data-driven programs to mitigate the impact of COVID-19 in South America, governments which fail to establish trust by providing clear and transparent guidance will not be able to convince their population to participate in the efforts, no matter how advanced the technology used.⁶⁰

The opposite of building trust, of course, is strict legal enforcement of an obligation, which is not at all unusual in the context of mass inoculations.

⁵⁶ Carl Schmitt, *Political Theology: Four Chapters on the Concept of Sovereignty* (University of Chicago Press ed, 2005) 5–16.

⁵⁷ Deutscher Ethikrat (n 50) 4.

⁵⁸ Michael Veale, 'Sovereignty, Privacy and Contact Tracing Protocols' in Linnet Taylor and others (eds), *Data Justice and COVID-19: Global Perspectives* (Meatspace Press 2020).

⁵⁹ Council of Europe (n 50).

⁶⁰ Blauth and Gstrein (n 14) 12–14.

Some states around the world will make this choice, but the vaccination passport, should it be broadly used and practically indispensable is a direct proxy of an obligation, which could have complex side effects. Indeed, the global landscape of obligations related to COVID-19 mitigation measures is such, that obligation has already emerged as a new normal. This being said, a cursory look at the significant differences in approaching the fight against the pandemic among the EU Member States provides a cautionary tale of a failure of coordination and ability to ground governmental responses in reliable scientific data. The rest of the world is no different. Here particularly the case of Argentina stands out, where it became mandatory to present a certificate for free movement in public space. The certificate is based on a standardised self-evaluation of COVID-19 symptoms, which is accessible via an app for mobile phones, or a website. The government suggested to repeat self-evaluation regularly in order to renew certification, but overall numbers of completed evaluations suggest that citizens are not eager to act accordingly. While intentionally wrong statements are illegal, the scientific legitimisation underpinning the policy remains vague, and it is unclear either how insights from the self-evaluation will be used in the future, or how compliance will be enforced. The only aspect that seems clear is that the measure had no significant effect on the mitigation of the pandemic. At the same time, those who possess smartphones and have reliable Internet access are put in an even more privileged position than before the pandemic.⁶⁷ If situations like this exist for some time and additional potential concerns around certification exist – as e.g. outlined in the subsequent sections – it is likely that programs will fail to gain trust and support, while at the same time promoting societal division since certain subgroups will be further disadvantaged, because they will not be able to access such programmes.

In the context where the purely voluntary nature of vaccinations is underlined, much depends on the prominence of the anti-vaccination movements in the country concerned / particular strata of society. A way to boost trust in the context of voluntary inoculations could be, for instance, offering the populations a choice between different available vaccines – what is already the case in several EU Member States – it is the scale of inoculation, not the particular vaccine types that matters, while the population is offered an additional choice going beyond either/or. The vaccination passports, should they really result in discrimination of those failing to provide them as we fear, could come to play the role of a carrot in

⁶⁷ *ibid* 6–7.

a sticks and carrot game of mass inoculation. This effect is only possible in the long run, however, since it is the shortage of vaccines and maladministration, not the shortage of those willing to get the jab, which slows the global inoculation effort at the moment. Moreover, as already mentioned, ample examples of political games involving non-recognition of vaccinations using particular types of vaccines – in disconnect from their proven effectiveness – in inter-state relations is likely to persist, shredding any hopes of the supporters of a global scientifically-sound deployment of vaccination passports into pieces.

2. Legal perspective

From a legal perspective, vaccination passports urgently require attention in the context of privacy and data protection, discrimination and free movement. A central question running through the following sections is whether the introduction of vaccination passports will have an enabling dimension strengthening the autonomy of individuals and groups, or rather become yet another tool for surveillance and control, augmenting the spectrum of the surveillance assemblage.

Furthermore, the introduction of this new tool needs to be viewed as one of the measures of a permanent response – a ‘new normal’. This becomes problematic when viewed through the lens of state of emergency governance, through which the current situation is often practically addressed by governments. State of emergency measures derive their legitimacy from the right of the state to ensure its survival in cases of necessity, concreteness and urgency.⁶² Specifically, measures to be implemented in response to emergencies need to fulfil the criteria of urgency, a temporal component, and necessity as a threshold of representing the least drastic measure. Unlike the cases such as abrupt terrorist attacks, a long-term crisis such as the ongoing global pandemic does not indisputably fulfil these criteria.

a. Privacy, data protection and autonomy

As mentioned in the introduction, several technical and organisational solutions are currently being discussed to implement vaccination passports. Some of them are a mere upgrade to pre-digital solutions such as the

⁶² Andrej Zwitter, ‘The Rule of Law in Times of Crisis - A Legal Theory on the State of Emergency in the Liberal Democracy’ (2012) 98 *Archiv für Rechts- und Sozialphilosophie* 95.

standardised 'Carte Jaune' immunisation certificates against yellow fever.⁶³ Others plan to revolutionise identification for the entire health sector, a repeating phenomenon in the pandemic.⁶⁴ Current developments in public administration suggest that many solutions will have at least some sort of electronic or digital element. However, as has been elaborated above in the section on historic lessons from the adoption of data retention systems, this is worrying since digital solutions have a tendency towards 'mission creep' as time evolves and despite the original justification for their existence disappearing. This is also one of the main drivers for the movement towards 'self-sovereign identities' and was in a different form already extensively discussed during the adoption of digital contact tracing apps. Here the question was whether such apps should have a 'centralised' (essential data processing happens in the governmental sphere) or 'decentralised' (essential data processing happens in user sphere) architecture.⁶⁵ Given such uncertainties and with the focus on the privacy of the individual, it is probably safer to adopt conservative and non-digital variants of vaccination passports, if they are necessary and proportionate at all. It also remains to be seen what impact the establishment of COVID-19 immunisation certificates will have on the design and governance of existing registers to map inoculation efforts in various states. For instance, the Austrian government has made it mandatory to register personal details during participation in the national inoculation program (no 'opt-out' for individuals), which in turn raises concerns that residents will not be vaccinated due to data protection concerns.⁶⁶

In principle and regardless of the final technological implementation, authoritative legal frameworks such as the EU General Data Protection Regulation (GDPR) or Convention 108+ of the Council of Europe require that certain principles be complied with.⁶⁷ Since these legal texts are based on

⁶³ Phelan (n 16) 1597.

⁶⁴ See e.g. Sohag Saleh and Farabi Shayor, 'High-Level Design and Rapid Implementation of a Clinical and Non-Clinical Blockchain-Based Data Sharing Platform for COVID-19 Containment' (2020) 3 *Frontiers in Blockchain* <http://www.frontiersin.org/articles/10.3389/fbloc.2020.553257/full> accessed 28 February 2021.

⁶⁵ Veale (n 58).

⁶⁶ Barbara Wimmer, 'Nationales Impfreger ist online und läuft' (14 January 2021) <https://futurezone.at/netzpolitik/nationales-impfreger-ist-online-und-laeuft/401155014> accessed 2 March 2021.

⁶⁷ Jörg Ukrow, 'Data Protection without Frontiers? On the Relationship between EU GDPR and Amended CoE Convention 108' (2018) 4 *European Data Protection Law Review* 239; Graham Greenleaf and Bertil Cottier, '2020 Ends a Decade of 62 New Data Privacy Laws' (Social Science Research

broader frameworks such as the Universal Declaration of Human Rights or the International Covenant on Civil and Political Rights of the United Nations, their guidance could also become relevant beyond the 47 member states of the Council of Europe, let alone the EU. The discussion on best practices for digital contact tracing apps has been fruitful and essential principles have been identified by numerous public and private institutions.⁶⁸ These principles can inform the design and implementation of digital vaccination passports. They can be summarised under the umbrella terms of purpose limitation, data minimisation and transparency, as well as privacy by design and data protection by default.⁶⁹

Apart from the design of the vaccination passports themselves it is also necessary to consider the broader organisational and societal embedding. This certainly needs guidance through the governance frameworks already mentioned earlier, but also technological aspects and interoperability play a role. To illustrate shortly what can go wrong with a case from the Netherlands, the rapid scaling of the COVID-19 test and trace system without appropriate governance and organisational safeguards has resulted in the leak of eight million datasets as of the end of January 2021,⁷⁰ including highly sensitive personal data such as test results, names, addresses and social security numbers.⁷¹ That such data is increasingly at the centre of attention of cybercriminals is also demonstrated by a data leak of a health laboratory in France in February 2021, where information relating to approximately 500,000 persons was compromised.⁷²

Network 2020) Privacy Laws & Business International Report 163
<https://papers.ssrn.com/abstract=3572611> accessed 13 April 2020.

68 See e.g. World Health Organisation, 'Ethical Considerations to Guide the Use of Digital Proximity Tracking Technologies for COVID-19 Contact Tracing' (28 May 2020) https://www.who.int/publications/i/item/WHO-2019-nCoV-Ethics_Contact_tracing_apps-2020.1 accessed 9 March 2021; Urs Gasser and others, 'Digital Tools against COVID-19: Taxonomy, Ethical Challenges, and Navigation Aid' [2020] *The Lancet Digital Health*.

69 Blauth and Gstrein (n 14) 4–5.

70 Mitchell van de Klundert and Joost Schellevis, 'Lek in GGD-systeem al driekwart jaar aanwezig' (28 January 2021) <https://nos.nl/l/2366341> accessed 2 March 2021.

71 Toby Sterling, 'Personal Data Stolen from Dutch Coronavirus Track-and-Trace Programme' *Reuters* (29 January 2021) <https://www.reuters.com/article/us-health-coronavirus-netherlands-datapr-idUSKBN29Y1H3> accessed 28 February 2021.

72 Fabien Leboucq and others, 'Les informations confidentielles de 500 000 patients français dérobées à des laboratoires et diffusées en ligne' (*Libération*, 23 February 2021) https://www.liberation.fr/checknews/les-informations-confidentielles-de-500-000-patients-francais-derobe-es-a-des-laboratoires-medicaux-et-diffusees-en-ligne-20210223_VO6W6J6IU VATZD4VOVNDLTDZBU/ accessed 28 February 2021.

Finally, in this context it is also interesting to briefly consider a recent empirical study on users of the ‘Health Code’ (*jiankangma*) system adopted in many regions of the People’s Republic of China. This system presents a mix of digital contact tracing and immunity certification. Initially, users need to fill out a survey and allow for permanent tracking of their location. Health Code also requires them to scan QR codes strategically placed at checkpoints in public or busy spaces (e.g. public transportation, supermarkets, or residential communities). Based on this input, Health Code generates a ‘real time health status’ which is either green (healthy), yellow (moderate risk) or red (high risk).⁷³ The presentation of the status allows users to access public and private spaces accordingly. Chinese users who have responded to the survey are aware of the risks to their privacy, with attitudes ranging from ‘privacy tradeoffism’ over fatalism, to questions about how this system may evolve in the future with negative consequences for individual and collective autonomy.⁷⁴ This example clearly demonstrates the fine line between a system that enables its users to enjoy more freedom of movement on the one hand, while constantly requiring them to share information on the other.

b. Discrimination

Ensuring public health and public order, protecting human rights and facilitating economic survival of the state are often portrayed as opposites in current political and public debates. There is, however, no doubt that to ensure all of them is the obligation of any (democratic) state.⁷⁵ This obligation has to be balanced against the potential negative consequences of the introduction of a vaccination passport. From a legal perspective, discrimination must not take place on the basis of age, gender or economic status (see for example Article 2 para. 1 on “non-discrimination” and Article 26 on “equality before the law” of the International Covenant on Civil and Political Rights). However, differentiation between certain groups of the population might be possible on the basis of risk assessments, for example allowing earlier access to vaccination for certain high-risk and societally relevant sectors such as health care.

While this logic applies to vaccination policies, it does not equally apply to the consequences of introducing a vaccination passport, which could become a *conditio sine qua non* for the participation in public and

⁷³ Liu and Graham (n 13) 4.

⁷⁴ *ibid* 5–6.

⁷⁵ Hans Kelsen, ‘Foundations of Democracy’ (1955) 66 *Ethics* 1.

economic life. At the same time, broad rollout of vaccination passports and the building of a binding legal framework surrounding their functioning in society introduces duties of private citizens to enforce potentially discriminatory obligations in the sense of horizontal human rights effects. A restaurant owner or an airline will most likely be obliged to deny service to those, who are not in possession of a vaccination passport. Should this not be the case, the wide rollout of such a COVID-19 mitigation measure is unclear. At the same time, such horizontal discrimination – the enforcement of vaccination passport policy by private actors, as opposed to directly by states and government agents – gives rise to numerous far-reaching concerns, especially given that not everyone will be able to be vaccinated for a whole array of reasons as demonstrated above. Furthermore, most likely not all vaccine types will translate into ‘accepted’ vaccinations globally for the purposes of obtaining the certification. Due to significant differences between legal systems in terms of how far governments can expect private actors to enforce policies with far reaching negative human rights implications, questions such as ‘can a business owner exclude people without such a document from purchasing its goods and services?’ will be answered differently from jurisdiction to jurisdiction, and the opportunities for legal action in cases where such questions are answered in the affirmative will vary.

It is clear, however, that the horizontal effect of human rights would mean that the state would either have to prevent such discrimination from taking place (duty to actively establish a state; *Staatliche Schutzpflicht*), or alternatively provide legal grounds that would justify such discrimination – which would then evolve into legally mandated differentiation. While many protections enshrined in the European Convention of Human Rights apply foremost to public authorities – particularly norms regarding privacy and human dignity – vaccination passports would blur the public-private divide to a very significant extent.⁷⁶ Taken in this light, a vaccination passport is thus a shorthand for a requirement to discriminate. As inoculation will progress at different a pace throughout different nations and groups, a return ‘back to normal’ is not possible on equal grounds. The evidence on the unequal effect of the pandemic on different socio-economic strata of societies is solid and has been much discussed.⁷⁷ Rather than alleviating

⁷⁶ Eleni Frantziou, ‘The Horizontal Effect of the Charter of Fundamental Rights of the EU: Rediscovering the Reasons for Horizontality’ (2015) 21 *European Law Journal* 657.

⁷⁷ Sarah Ganty, ‘La précarité socio-économique en temps de Covid-19 : quel rôle pour la convention Européenne des droits de l’homme ?’ [2021] *Revue trimestrielle des droits de l’homme* 319–352.

discrimination concerns, vaccination passports will necessarily work to reinforce them for as long as they are relevant.

Discrimination between nations will be as pronounced; in a hypothetical situation where a country such as Hungary is faster with vaccinating its population than another country such as the Netherlands, indirect discrimination against the Dutch EU citizens in the European context will be reinforced through vaccination passports. Worse still, in a situation where some countries 'do not accept' particular types of vaccines (as in the example with Poland and Sputnik V offered above), the vaccine passport as a concept becomes particularly arbitrary and political. This is nothing short of the whole idea's doom's hour: if politics prevails outright over the declared considerations of medical necessity coupled with scientific rationality, the reasons for a vaccination passport fade away. The very validity of this document – let alone the recognition of the fact of immunization, which such a document attests to by design – will depend on countless factors at play: the place of issue, the type of the vaccine entered on the document and the place/local rules of the country where the document is being checked, exacerbating the discriminating effects of the on-going pandemic.

c. Free movement across borders

Given that viruses do not stop at national borders, using national border closures, while potentially adding to the image of the state as an entity effectively in control of the pandemic situation in the eyes of some groups of the electorate, conflates the 'war on the virus' with the 'war on migrants',⁷⁸ solving little in terms of dealing with the outstanding health risks. As the Parliamentary Assembly of the Council of Europe notes 'Vaccine hesitancy and vaccine nationalism have the capacity to derail the so-far surprisingly fast and successful Covid-19 vaccine effort, by allowing the SARS-CoV-2 virus to mutate and thus blunt the world's most effective instrument against the pandemic so far.'⁷⁹

The EU, while fully realizing the global implications of the health-crisis, has not achieved significant success in formulating a continent-wide legal

78 Charles Heller, 'De-Confine Borders: Towards a Politics of Freedom of Movement in the Time of the Pandemic' (2020) WP-20-147 Centre on Migration, Policy and Society Working Papers 25.

79 Council of Europe (n 50).

response.⁸⁰ Although some coordination exists, as is evidenced by the European Council's regularly updated recommendations, numerous Member States have used the pandemic as a pretext to *de facto* disapply EU law on free movement of persons and non-discrimination of nationality by either prohibiting travel (Germany, Hungary, Belgium) or creating different sets of rules for own nationals and other Europeans in absence of any epidemiological justification for breaking the law (Hungary).⁸¹ As Member States took unilateral measures in breach of EU law, Ursula von der Leyen's calls 'to end selfishness' largely remained unheeded.⁸² In the context where the coordinated EU approach, although strong on paper, remains a fiction in reality, any unilateral introduction of vaccination passports by EU Member States is likely to make matters significantly worse. Even more: given the different speeds of vaccinations from Member State to Member State, this is also bound to result in indirect discrimination on the basis of nationality against the citizens of each of the EU nations 'lagging behind' in the vaccination drive. This is already the case in Hungary: EU citizens are requested to produce a positive anti-bodies test at the border, which is otherwise closed. PCR tests are not accepted. Some EU Member States make it even worse: the Belgian border is *de facto* sealed (at least in the books, the practice is always more flexible) and the European Commission's letters have been absolutely ineffective in changing the situation on the ground. It remains to be seen what the implementation of the proposed 'Digital Green Pass' will do to address such concerns.

All in all, this pandemic exposed freedom of movement across the EU as far more fragile than many had assumed; the COVID-19 crisis has demonstrated yet again that the Emperor is naked.⁸³ As free movement of persons crumbled in no time, the lesson learnt is not that we would need another type of document – a vaccine passport of some sort – in order to cross international borders, but that a crucial component regulating such crossings was effectively missing in action: European Union law. *Alberto Alemanno* is right when he points out that political leaders and the European Commission have failed to protect the dream of a better life in the

80 Alberto Alemanno, 'The European Response to COVID-19: From Regulatory Emulation to Regulatory Coordination?' (2020) 11 *European Journal of Risk Regulation* 307.

81 Elena Sánchez Nicolás, 'Brussels: Six EU States Travel Restrictions Went "Too Far"' (*EUobserver*, 24 February 2021) <https://euobserver.com/coronavirus/151031> accessed 28 February 2021.

82 Eszter Zalan, 'Von Der Leyen Warns "end Selfishness" in Virus Crisis' (*EUobserver*, 26 March 2020) <https://euobserver.com/coronavirus/147900> accessed 28 February 2021.

83 JHH Weiler and Ulrich R Haltern, 'The Autonomy of the Community Legal Order-Through the Looking Glass' (1996) 37 *Harvard International Law Journal* 411.

Union, ignoring that Europeans do not need passports in order to cross internal inter-state borders in the Union.⁸⁴ The assumption that the rule of law would somehow return prompted by the vaccination passport seems – given all the problems mentioned above – naïve when viewed against the light of the fundamental idea of the internal market as a place without internal frontiers, where four types of free movement are secured. Taken into account the current reality, the introduction of the vaccination passport will likely have an effect contrary to its stated aim of simplifying border crossings: introducing them now, when the driver's seat of the free movement of persons in the internal market is all but vacant, could result in further complications and fragmentations of the EU's stated single working and living space, rather than simplification of border crossings.

Conclusion

In conclusion, it remains unlikely that vaccination passports alone will be the main strategy to mitigate the impact of the pandemic.⁸⁵ Their technological development and design is already a complex task, but can only succeed if the numerous ethical, social and legal aspects as outlined in this article are fully addressed in detail. Most crucially – and against the background of the constantly present threat of introducing new cleavages into society, which is inherent in any 'passportization' – vaccination passports relate to a set of complex questions to be answered. Answers are not as straightforward as they first seem.

First, the purposes of the vaccination passports, especially at the initial stages of the inoculation effort when but a minor share of the population has a chance to be vaccinated, are quite blurry. Indeed, what should actually be achieved? By when? By whom? And what are the effects on the overarching goal of 'getting back to normal'? As we have outlined in this article, mission creep is a looming threat, as with any kind of a surveillance technology.

Secondly, as with other surveillance technology, the public-private divide, and all the potential problems associated with blurring it, comes to the fore. Indeed, who is to emerge as the force behind the vaccination passports'

⁸⁴ Alberto Alemanno, 'We Lived the European Dream. Will Any Politician Stand up for Open Borders?' *The Guardian* (22 May 2020) <https://www.theguardian.com/world/commentisfree/2020/may/22/european-dream-politician-stand-up-for-free-movement> accessed 9 March 2021.

⁸⁵ Voo and others (n 45) 158–159.

introduction, rollout and application/enforcement: will it be in public or private hands? At this stage, it seems like the private sector is in the lead, with the tourist and airline industries being desperate to get back to business. However, does this result in the discounting of a number of crucially important considerations of public interest?

Thirdly, the modalities of governance of the new passportization are key and remain unclear. How is it to be governed and which standards are to count? When does one have the 'right' inoculations?⁸⁶ Since the certification of different vaccines from jurisdiction to jurisdiction is not a synchronous matter, this is a valid question. For instance, if Hungary is vaccinating with 'Sputnik V', which has not received a green light from the EU at the time of writing and is not in use in most other Member States, does this mean that Hungarian-issued vaccination passports are to be of 'lesser quality' than - to just name one country - French ones? And what about other countries such as the Russian Federation, which almost uniquely rely on Sputnik V, or the Chinese equivalent? The crucial question, among many, which emerges, is whether one should speak of a 'vaccination passport' or 'vaccination passports' in the plural. With the growing number of both vaccines and virus varieties, multiplied by potentially poisonous political concerns and failing international leadership, this complexity is unlikely to go away. Hence, we will probably see more fragmentation in the coming months, which has to be particularly concerning for the EU and all who believe in the value of multilateralism.

Finally, against these profound questions, the technical design to make vaccination passports 'private by design', secure and usable are relatively minor. However, appropriate standards need to be set, ensuring no contradiction with the insights presented above. Ultimately, what counts is not the technical fix, but the implementation in society. There is no way to hack oneself out of this pandemic. In order to avoid that the next wave of the COVID-19 pandemic will be the 'wave of apartheid', we need thoughtful, feasible and practical solutions that are widely accessible and work for everyone.

⁸⁶ Lin H Chen, David O Freedman and Leo G Visser, 'COVID-19 Immunity Passport to Ease Travel Restrictions?' (2020) 27 *Journal of Travel Medicine*, 27.

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The **Centre on Migration, Policy and Society** (COMPAS)
University of Oxford
58 Banbury Road, Oxford, OX2 6QS
e: info@compas.ox.ac.uk