Vol XII, Issue 2

THE ELSA LAW REVIEW

LEGACY COLLECTION

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THE ELSA LAW REVIEW LEGACY COLLECTION

This Issue is part of the Legacy Collection, a special edition of the ELSA Law Review comprising of the following issues:

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These issues have been collected from 2020 until 2024, but due to publication and internal difficulties not published on schedule. They have now been reviewed and compiled, and are presented here, as part of the Legacy Collection.

The Legacy Collection offers special recognition to authors of articles comprising these issues. Their works are preserved and displayed in the context of the Legacy Collection, which is also meant to contextualise their work into the legal landscape of the years during which it was written.

This Edition also includes a Foreword From the Future, a special addition to the ELSA Law Review to honour authors of these articles and thank them for their contributions.

Below is the list of contributors for the publication of this Issue in the Legacy Collection.

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FOREWORD FROM THE FUTURE

Dear Readers,

As we present this long-awaited issue of the ELSA Law Review, we wish to address and sincerely apologise for the significant delay in its release. We know that many of you have been eagerly anticipating this publication, and it is with genuine regret that we acknowledge the impact of this delay on our contributors, readers, and the broader ELSA Network.

This issue reflects the hard work, dedication, and expertise of each contributor who has shared their research and insights. It is a testament to the importance of our mission to promote legal scholarship and cross-border dialogue on human rights issues. Unfortunately, despite the passion and commitment invested by our team, we encountered challenges that led to unforeseen delays. We take full responsibility for this oversight, and we are grateful for your patience.

In response to these setbacks, we have stepped forward to implement crucial improvements to our publication process. We have worked tirelessly to introduce systems and practices that will make our future publications faster and more sustainable. We are confident that our processes are now more robust and equipped to meet the demands of regular, high-quality publication.

With the Legacy Collection, we renew our commitment to providing a platform for meaningful legal discourse and human rights advocacy. We are determined to uphold the standards of excellence that our readers and contributors expect and deserve, and we promise that we will do all we can to ensure that future issues of the ELSA Law Review are published on schedule.

A special thanks goes to all the legal experts in our newly established Academic Board, visible on the ELR website and from ELR XV onwards, who pledge their time and effort to the ELR.

Finally, we thank our predecessors and their Publications Teams for identifying flaws with the publication process and giving us the opportunity to remedy them.

Thank you all for your support, patience, and trust. We look forward to sharing this and many future issues with you.

Warm regards,

Niko Anzulović Mirošević
Vice President in charge of Academic Activities, International Board of ELSA 2024/2025

&

Velina Stoyanova
Director for Publications, ELSA International Team 2024/2025

LETTER FROM THE EDITORS

Dear Reader,

We are happy to share with you the second issue of the 2020 ELSA Law Review on the topic of human rights and law and technology. The ELSA Law Review (ELR) is a biannually published peer-reviewed journal, focusing on human rights and additional hot legal topic, published by the European Law Students' Association (ELSA) under the patronage of Robert Spano, President of the European Court of Human Rights and in collaboration with Catolica Global School of Law. The current volume has been edited and compiled in the middle of the Covid-19 pandemic, while the entire world has been working remotely, hence relying on technology – thus this issue sheds a light on relevant human rights related happenings during the age of technology.

Technology have undoubtably changed our everyday life even before pandemic times thus technology has become a core element of today's society. From emails to driverless cars and simple internet, and the means to access it, have transformed the education and learning, the way we communicate and work with each other, and, finally, our self-awareness has also become quite dependent on technology. Subsequently, the topic of human rights and law and technology should not be considered as an odd one, since technology has changed the legal profession and the area of human rights significantly.

The second issue of the XII volume of the ELR consists of seven diverse articles, starting with the article focusing on the migration and human rights. Second article in this issue focuses on the Rome II regulations and is followed by an article focusing on the situation of indigenous peoples in Latin America and the violations of their fundamental rights by political actors, allowing the ELR to expand beyond the European continent and local legislations. Fourth article focuses on the interplay between law and technology and human rights, bringing the topic of killer robots closer to European law students. This article is followed by articles focusing on the guidelines for a new space age, online platforms and the need for their regulation in data sector, as well as the winning essay of the 9th ELSA Day Essay Competition organised in collaboration with the Council of Europe on the topic 'Impact of Artificial Intelligence on human rights and democracy'.

Being Editor and Deputy Editor in Chief of a publication such as the ELSA Law Review that exists for more than 30 years and has witnessed crucial social changes is both an honour and a responsibility, and we would definitely not be able to execute it without the support we have

received in compiling this issue. Firstly, we extend out sincerest gratitude to the Director for Publications in the ELSA International team, Bernadetta Semczuk, who has been in constant communication with authors of the ELSA Law Review and our right hand throughout this process. Furthermore, Academic Editors – Alexandra Gaglione, Ekaterina Kasyanova, Alessia Zorneta and Beatrice Marone, Linguistic Editor Maisie Beavan and the Technical Editor Antonette Persechino deserve a special recognition considering the time, energy and knowledge they put into the ELSA Law Review. All shortlisted submissions have been peer-reviewed by academics from Catolica Global School of Law from Portugal – we are incredibly grateful for our long-lasting cooperation and for your efforts to maintain the high quality of the ELSA Law Review. Lastly, we need to thank our publishing partner, Wolf Publishers, who conduct the typesetting and publication of the ELSA Law Review, thus ensuring the validity and relevancy of this peer-reviewed, student-edited publication in the wider academic circles.

We hope you enjoy reading the second issue of the 2020 ELSA Law Review as much as we enjoyed working on it!

Best wishes,

Maja Rajić
Editor in Chief

&

Ali Aguilera-Djoubi
Deputy Editor in Chief

HUMAN RIGHTS DENIAL AND MIGRATION: THE GREEK SITUATION

Claire-Marie Beyet[1]

Abstract

The Greek migration crisis has at numerous times been at the centre of European debates, especially for the protection of the integrity of the European territory or for the protection of fundamental rights of migrants. With the recent decision of Turkish President Tayyip Erdogan to open the borders, the gravity of the situation has increased. The article addresses the implementation of human rights in refugee camps and the failure of the Greek government to give proper protection to migrants. It also evidences clear human rights violations by the different parties to the crisis. The article seeks to demonstrate the issue of accountability for the European Union, Turkey and Greece, while highlighting the criticisms behind the approach taken by these entities to solve the migration situation. The article then focuses on the serious danger created by the COVID-19 pandemic in overcrowded camps. The article ultimately summarises the propositions made by non-governmental organisations in the implementation of new policies, respecting international and European human rights law Rome II Regulation.

[1] Claire-Marie Beyet holds an LL.M from the Lille Catholic University, with a specialization in Human rights, Security and Development. She has served as Vice-President for Academic Activities of ELSA Lille for the 2018/2019 term. After an internship at the International Residual Mechanism for Criminal Tribunals, she is currently doing a second internship in the field of law enforcement, while being a teaching assistant in Public International Law.

1. Introduction

The European Union (EU) 'is founded on the indivisible, universal values of human dignity, freedom, equality and solidarity; it is based on the principles of democracy and the rule of law'.[2] However, the vulnerable position of asylum-seekers in Greece questions these founding principles and highlights a situation of European accountability for human rights violations.[3] From the overcrowded Greek camps to the lack of commitments of European countries to host migrants,[4] this critical situation demonstrates a breaking point in the implementation of human rights.

The Universal Declaration of Human Rights and the European Convention of Human Rights guarantee that basic rights such as security, food, adequate housing, education and health are granted to individuals.[5] For asylum-seekers, especially in Greece, the respect of these rights is often in jeopardy, especially the right to life, liberty and security.[6] As it was highlighted by the United Nations High Commissioner for Refugees this observation is interdependent with the obligations imposed upon stakeholders (Greece, the EU and Turkey) to preserve these rights.[7]

2. Overview of the 2020 Greek migration crisis

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[2] Charter of Fundamental rights of the European Union (CFR, as amended) Preamble.

[3] Judith Sunderland, *The Mediterranean Migration Crisis : Why People Flee, What The EU Should Do* (Human Rights Watch 2015); Pero Maldini and Marta Takahashi, 'Refugee Crisis And The European Union: Do The Failed Migration And Asylum Policies Indicate A Political And Structural Crisis Of European Integration?' (2017) 02 Communication Management Review; Stefan Wallaschek, 'Contested Solidarity In The Euro Crisis And Europe's Migration Crisis: A Discourse Network Analysis' (2019) 27 Journal of European Public Policy.

[4] For committed countries, see: Switzerland: 'Swiss Take In Young Refugees From Greek Island Camps' (*SWI swissinfo.ch*, 2020) <https://www.swissinfo.ch/eng/humanitarian-policy_swiss-take-in-young-refugees-from-greek-island-camps/45765032> accessed 7 July 2020; Finland: 'First 25 Refugee Children From Greece To Finland In June' (*Yle Uutiset*, 2020) <https://yle.fi/uutiset/osasto/news/first_25_refugee_children_from_greece_to_finland_in_june/11355565> accessed 7 July 2020; Portugal: Catarina Demony and David Gregorio, 'Portugal To Take In 500 Unaccompanied Migrant Children From Greek Camps' (*Reuters*, 2020) <https://www.reuters.com/article/us-health-coronavirus-portugal-migrants/portugal-to-take-in-500-unaccompanied-migrant-children-from-greek-camps-idUSKBN22O30D?feedType=RSS&feedName=worldNews&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+Reuters%2FworldNews+%28Reuters+World+News%29&&rpc=401> accessed 7 July 2020.

[5] Universal Declaration of Human Rights (adopted 10 December 1948 UNGA Res 217 A(III) (UDHR) Articles 3, 25 and 26; Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights, as amended) (ECHR) Articles 5 and 8, Protocol 1 Article 2. See also M. Raymond Izarali, 'Mitigating Globalization With Basic Human Rights To Protect Basic Human Needs' (2011) 3 The Global Studies Journal; Stefania Kalogeraki, 'A Mixed Method Approach On Greek Civil Society Organizations Supporting Migrants During The Refugee Crisis' [2019] Journal of International Migration and Integration.

[6] Alice Edwards, 'Back to Basics: The Right to Liberty and Security of Person and 'Alternatives to Detention' of Refugees, Asylum-Seekers, Stateless Persons and Other Migrants' [2011] UNHCR Division of International Protection, PPLA/2011/01.Rev.1; Lucy Alper, 'Greece is not safe for asylum seekers and refugees to be sent back to' (*Freemovement*, 2019) <https://www.freemovement.org.uk/returns-to-greece/> accessed 7 August 2020.

[7] UNHCR, 'Rights and obligations of asylum seekers' (*UNHCR*, 2020) <https://help.unhcr.org/greece/rights-and-duties/rights-and-duties-of-asylum-seekers/> accessed 8 August 2020.

Since 28 February 2020, Turkish President Tayyip Erdogan has invited migrants and refugees based in Turkey, approximately four million, to cross the state and join the EU. According to President Erdogan, this decision was justified by the EU infringement of the 2016 EU-Turkey deal.[8] This statement of cooperation between the Turkish government and the EU States was meant to control refugees and migrants arriving in Turkey and wanted to join the Greek islands through this country. For Turkey, this deal represented numerous opportunities, such as accession talks and visa-free travel for Turkish nationals to the EU. However, with the failure to deliver visas to Turk's nationals, the EU was considered as breaching the agreement.

The EU-Turkey deal system was already at the centre of controversy before its failure. For instance, the jurisdiction of the Court of Justice of the European Union (CJEU) to rule on the legality of the agreement was questioned,[9] and the recognition of Turkey's status as a 'Safe Third Country' allowing for the return of migrants was also heavily criticized.[10] Put together the numerous controversies of this deal from a human rights approach illustrate a more general failure. The massive migration caused by the breach of this agreement represents the starting point for the complete disappearance of the protection of certain human rights migrants' rights protection.

On 1 March 2020, the Greek Government decided to suspend asylum applications. In other words, the immediate deportation of any migrants captured was decided.[11] From this point, numerous accusations of human rights violations done by Greece on its territory and in the Mediterranean Sea started to alarm the international community. Several videos were presented in front of the Turkish parliament, showing Greek security forces driving migrants away from the border.[12] The answer from Greece, denying that its security forces were shooting at migrants, was

[8] European Council, 'EU-Turkey Statement' (2016) <https://www.consilium.europa.eu/en/press/press-releases/2016/03/18/eu-turkey-statement/> accessed 7 July 2020. See also Petra Agnes Kanyuk, '"We Need Them, They Need Us, That Is All" – Summary Of The EU-Turkey Statement' (2016) 1 Public Goods & Governance; Michele Tantardini and Juliette Tolay, 'Does Performance Matter In Migration Governance? The Case Of The 2016 EU-Turkey Statement' (2019) 43 International Journal of Public Administration.

[9] *Joined Cases C-208 & C-210/17 P, NF et al v European Council* [2017] CJEU, ECLI:EU:C:2018:705 (CJEU).

[10] Angeliki Tsiliou, 'When Greek Judges Decide Whether Turkey Is A Safe Third Country Without Caring Too Much For EU Law' <https://eumigrationlawblog.eu/when-greek-judges-decide-whether-turkey-is-a-safe-third-country-without-caring-too-much-for-eu-law/> accessed 7 July 2020; Esen Aydın, 'The Concept Of Safe Third Country In European Union Acquis And Its Reflections On The Turkey-EU Readmission Agreement' [2018] Public and Private International Law Bulletin; Sílvia Morgades-Gil, 'The "Internal" Dimension Of The Safe Country Concept: The Interpretation Of The Safe Third Country Concept In The Dublin System By International And Internal Courts' (2020) 22 European Journal of Migration and Law.

[11] Elias Kondilis and others, 'Covid-19 And Refugees, Asylum Seekers, And Migrants In Greece' [2020] BMJ; Evangelia (Lilian) Tsourdi, 'Holding The European Asylum Support Office Accountable For Its Role In Asylum Decision-Making: Mission Impossible?' (2020) 21 German Law Journal.

[12] BBC News, 'Turkey Claims Migrant Killed In Greek Border Clash' (2020)

only the beginning of a confrontation between Turkey and Greece regarding respect for human rights.

Since April 2020 the COVID-19 pandemic, especially with regard to the crisis management done by the two countries, endangers both migrants' lifes and rights.[13] The destruction of the main camp, the Moria camp, in September 2020 created another threat for an already vulnerable population and for a fragilized human rights situation.[14]

3. Human rights, direct victims of Turkish and Greek politics

The EU-Turkey deal has caused a great distortion in the political relationship between the EU and Turkey.[15] Erdogan's impunity for the numerous human rights violations Turkey has committed, illustrates, for several scholars, only one of the numerous examples of a 'EU-mutism'.[16] In other words, according to the same scholars, the control Erdogan had on migration flows to Greece represents an enormous pressure on the EU, even leading to a lack of decision to sanction the lack of violation of numerous human rights in Turkey.[17] Yet, the Turkish recent decision is not the sole responsible factor for the current situation.

In 2016, the introduction by the Greek government of a 'containment policy' aimed at deterring migrants from crossing to Greece from Turkey, has raised numerous criticisms. This policy required migrants to remain on the islands until their asylum requests were processed. The construction of new camps, maybe permanent camps, in order to alleviate overcrowding was deemed necessary for the application of this new policy.[18] A violent opposition from local

<https://www.bbc.com/news/world-europe-51735715> accessed 5 July 2020.

[13] 'HRW warns of health crisis in migrant camps' (2020) The News <https://www.thenews.com.pk/print/648349-hrw-warns-of-health-crisis-in-migrant-camps> accessed 7 August 2020.

[14] Vasileia Digidiki and Jacqueline Bhabha 'PERSPECTIVE EU Migration Pact Fails to Address Human Rights Concerns in Lesvos, Greece' [2020] Volume 22/2 Health and Human Rights Journal p291; 'European Court of Human Rights orders Greece to safeguard asylum seekers' life and limb on Lesvos' (2020) Refugee Support Aegean < https://rsaegean.org/en/european-court-of-human-rights-orders-greece-to-safeguard-asylum-seekers-life-and-limb-on-lesvos/>; 'Moria migrants: Fire destroys Greek camp leaving 13,000 without shelter' (2020) BBC News <https://www.bbc.com/news/world-europe-54082201> accessed 1 October 2020.

[15] Melina Duarte, 'EU-Turkey Refugee Deal: Buck-Passing And Bargaining On Human Lives At Risk?' [2020] Kaygı, Uludağ Üniversitesi Fen-Edebiyat Fakültesi Felsefe Dergis; Nefise Ela Gökalp Aras, 'Migration Emergencies And Multi-Level Governance At The EU–Turkey Border' [2020] Civil Society Review.

[16] Nefise Ela Gökalp Aras, 'A Game Changer In EU-Turkey Relations: The Opportunities And Pitfalls Of Migration Policy' (2019) 54 The International Spectator; Nikolaj Nielsen, 'Erdogan: Refugees Will Enter Europe Unless EU Does More' (*EUobserver*, 2019) <https://euobserver.com/migration/146566> accessed 4 July 2020.

[17] Bassant Hassib and Doaa Nounou, 'Blocked By Diplomatic Barriers: Syrian Refugees And The EU-Turkey Migration Cooperation' (2016) 7 European Journal of Social Sciences Education and Research; Lisa Haferlach and Dilek Kurban, 'Lessons Learnt From The EU-Turkey Refugee Agreement In Guiding EU Migration Partnerships With Origin And Transit Countries' (2017) 8 Global Policy.

[18] Lena Karamanidou, 'Historical Experiences Of Migration In Political Discourse In Greece: Using Critical Discourse Analysis To Explore Policy Legitimation' (2017) 2 Middle East Journal of Refugee Studies; Nikos

residents rose, however it was not taken into consideration. The numbers speak for themselves: in March 2020, about 25 000 refugees were housed in the overcrowded Moria refugee camp, on Lesbos.[19]

Moreover, the new policy implemented by the Greek centre-right government, who took office after parliamentary elections in July 2019, is at the origin of a domestic evolution in Greece and the migration crisis management. The new government is behind numerous policies explicitly targeting migrants. For instance: revocation of access to public health care for asylum seekers and undocumented migrants (July 2019); implementation of new criteria for application and approval of asylum status (September 2019); facilitation of the deportation of failed asylum seekers (October 2019); reinforcement of controls at the borders (November 2019); regulation of all NGOs dealing with migration issues (February 2020); reduction of the maximum period refugees can be sheltered through the Emergency Support to Integration and Accommodation (ESTIA) scheme from six months down to just one (June 2020).[20] According to the Greek government, these policies are meant to get the situation under control, and to facilitate the integration of those remaining in camps into the Greek society. However, this position is widely challenged, as the implementation of a more stricter asylum law will enable the deportation of more people back to Turkey.[21]

The Greek Council for Refugees and Oxfam have provided on 2 July 2020 a study on the new Greek asylum system. For them, the new policies implemented by the Greek government are intended to deport people, and not to grant them asylum. For instance, some provisions of this new legislation have shortened the deadlines for application, reduced the right to information, increased the need for a lawyer to perform the necessary actions related to asylum application and fully enjoy right to information (to note: there is only one State-sponsored lawyer in Lesbos), and breach numerous other human rights.[22] The report, entitled 'Diminished, Derogated,

Kourachanis, 'Asylum Seekers, Hotspot Approach And Anti-Social Policy Responses In Greece (2015–2017)' (2018) 19 Journal of International Migration and Integration.

[19] Simon Turner, 'What Is A Refugee Camp? Explorations Of The Limits And Effects Of The Camp' (2015) 29 Journal of Refugee Studies ; John Balouziyeh, 'Dispatch From Moria Refugee Camp: A Crisis Within A Crisis' [2017] SSRN Electronic Journal; Deutsche (www.dw.com), 'Refugee Crisis In Greece: Anger And Foreboding Grow On Lesbos' (*DW.COM*, 2020) <https://www.dw.com/en/refugee-crisis-in-greece-anger-and-foreboding-grow-on-lesbos/a-52615534> accessed 1 July 2020.

[20] Alan Duncan and others, 'Migration Flows In Commodity Cycles: Assessing The Role Of Migration Policies' (2020) 127 European Economic Review; Mikuláš Dzurinda, 'New Perspectives On Migration Policies' (2020) 19 European View.

[21] 'Refugee Crisis In Greece: Anger And Foreboding Grow On Lesbos' (*InfoMigrants*, 2020) <https://www.infomigrants.net/en/post/23131/refugee-crisis-in-greece-anger-and-foreboding-grow-on-lesbos> accessed 13 July 2020.

[22] ibid. See also Alan Duncan and others, 'Migration Flows In Commodity Cycles: Assessing The Role Of Migration

Denied', demonstrates that the law is at the origin of detention and exposition of people to abuse and exploitation. This legislation, which entered into force on 1 January 2020 and was amended in May 2020, is at the origin of detention in inhumane conditions, and expose people to abuses.[23] This is particularly true for vulnerable groups (such as children, pregnant women, people with disabilities).[24]

Irrespective of the above critiques, Greece has decided to publicly justify its decisions and policies. In March 2020, the Greek Parliament President Constantine Tassoulas sent a letter to the President of the Council of Europe's Parliamentary Assembly and 45 presidents of parliaments of EU member States. In this document, he compared the actual crisis to 'an asymmetric threat on the eastern borders of Greece, which are the borders of Europe'. Considering Turkey as an 'official migrant trafficker' he recalled that the right and the obligation to protect sovereignty justified the suspension of asylum applications. The implementation of new measures was, according to him, necessary and reasonable in order to protect public safety, public order and public health.[25] He justified the new policies through the interpretation of a decision given by the European Court of Human rights (ECtHR) which 'accepted the mass refoulement of migrants without an examination of their files, taking into account that they entered into Spain illegally and through the use of violence, while Spain had ordered their removal'.[26]

What is also important in this context, between the unsatisfaction of locals and human rights violations, the Greek situation is only getting worse because of the clashes with Turkey. As an illustration, Turkey's foreign ministry has accused multiple times Greece of violating human rights, while the Greek government criticised remarks made by Turkish authorities suggesting that the border might be opened to refugees once the coronavirus pandemic has eased. This fear led to the mobilisation of Greek and European forces in order to boost defence mechanisms along the border,[27] creating new issues and human rights violations.

Policies' (2020) 127 European Economic Review.

[23] 'Diminished, Derogated, Denied' (Oxfam, Greek Council For Refugees 2020) <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/621011/bp-diminished-derogated-denied-greece-refugees-020720-en.pdf;jsessionid=5D8DD580E99970A9120DE293F875CCEB?sequence=1> accessed 7 July 2020.

[24] UNHCR, 'Migrants in vulnerable situations' UNHCR's perspective' (*Refworld*, 2017) <https://www.refworld.org/pdfid/596787174.pdf > accessed 7 July 2020; IOM Handbook on Protection and Assistance to Migrants Vulnerable to Violence, Exploitation and Abuse (2019) <https://www.iom.int/sites/default/files/our_work/DMM/MPA/1-part1-thedomv.pdf> Accessed 8 August 2020.

[25] Alex Constantine, 'Greek Parliament President Sends Letter To Europe Over Migrant Crisis And Turkish Extortion Tactics - Greek City Times' (*Greek City Times*, 2020) <https://greekcitytimes.com/2020/03/06/greek-parliament-president-sends-letter-to-europe-over-migrant-crisis-and-turkish-extortion-tactics/> accessed 7 July 2020.

[26] ibid. See also *N.D. and N.T. v Spain* [GC] - 8675/15 and 8697/15 [2020] ECtHR.

[27] 'Turkey, Greece Exchange Accusations On Migrants And Border: Report - Turkish Minute' (*Turkishminute.com*,

The refugee deal with Turkey was not effective, and it is necessary for Greece and the EU to develop a viable strategy to manage the current crisis and ensure the protection of human rights. It is even more urgent as, during summer, the number of boat refugees from the Turkish coast increased significantly,[28] and the Moria camp was later destroyed.[29] It means more denial for asylum rights, more migrants at risk, and an increased population in already overcrowded camps.

4. Imminent dangers of the denial of asylum rights

According to the Greek Prime Minister, the new policies were adopted in compliance with Article 78(3) of the Treaty on the Functioning of the European Union (TFEU).[30] Pursuant to this Article, if a Member States is 'confronted by an emergency situation characterised by a sudden inflow of nationals of third countries, the Council, on a proposal from the Commission, may adopt provisional measures for the benefit of the Member State(s) concerned'. Considering that the decision was unilaterally taken by Greece itself, the implemented measures could be considered as illegal.

These policies must be taken into account together with the claims formulated against Greece, according to which coast guards are accused of sabotaging the boats carrying the refugees.[31] Several records from 2016 revealed that around 4600 refugees died in the Mediterranean, without any 'exterior intervention'. However, an online legal forum has recently documented that Greece was illegally deporting asylum seekers in orange, tented rescue rafts. Just Security stated that, since 23 March 2020, at least 11 illegal deportation of this kind occurred. If several advocacy and

2020) <https://www.turkishminute.com/2020/05/28/turkey-greece-exchange-accusations-on-migrants-and-border-report/> accessed 11 July 2020; 'Turkey Urges Greece To Respect Rights Of Migrants And Refugees On Border' (*Daily Sabah*, 2020) <https://www.dailysabah.com/politics/diplomacy/turkey-urges-greece-to-respect-rights-of-migrants-and-refugees-on-border> accessed 11 July 2020. 'Greece, Turkey Exchange Barbs Over Migrants | Kathimerini' (*Ekathimerini.com*, 2020) <https://www.ekathimerini.com/253144/article/ekathimerini/news/greece-turkey-exchange-barbs-over-migrants> accessed 11 July 2020.

[28] GCT, 'Migrant Crisis: Weekly Snapshot (10 August – 16 August 2020)' (*Greek City Times*, 2020) https://greekcitytimes.com/2020/08/19/migrant-crisis-weekly-snapshot-10-august-16-august-2020/ accessed 20 August 2020.

[29] Eva Cossé, 'Greece's Moria Camp Fire: What's Next?' (*hrw.org*, 2020) <https://www.hrw.org/news/2020/09/12/greeces-moria-camp-fire-whats-next> accessed 20 September 2020.

[30] Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (TFEU) [2016] OJ C202/1 Article 78(3).

[31] 'Greece: Migrants Attacked In The Aegean' (*InfoMigrants*, 2020) <https://www.infomigrants.net/en/post/25683/greece-migrants-attacked-in-the-aegean> accessed 8 July 2020; Nick Squires, Katy Fallon and James Rothwell, 'Greek Coastguard Fires Shots Towards Refugee Boat In Aegean As Tensions With Turkey Soar' (*The Telegraph*, 2020) <https://www.telegraph.co.uk/news/2020/03/02/greek-coast-guard-fires-shots-towards-refugee-boat-aegean-tensions/> accessed 8 July 2020.

rights groups had already documented cases of the Greek Coast Guard intercepting boats carrying the asylum seekers and migrants and pushing them back to Turkish territorial waters in the past, these new allegations of illegal deportation with rescue rafts are of a particular importance.[32] Investigations conducted by Human Rights Watch demonstrate that violence was used against asylum seekers, as well as confiscation and destruction of the migrants' belongings.[33] Migrants are being deprived of their essential rights, and their life seems to be willingly endangered by the Greek government. These events, if linked with the previous border incidents, only highlight the failure of Greece to respect the international obligations highlighted by international conventions and international organizations,[34] and the clear denial of asylum rights in the country.[35]

Taking into consideration international and European human rights law, a classification of the violation of human rights can be made. First, access to justice (e.g. effective remedies against detention or deportation, information on the situation, ...) and second, basic needs (housing, water, food, heating and sanitation) must be granted. However, the application of the EU Charter of Fundamental Rights, which guarantees the right to asylum seems to be in jeopardy in the country. Furthermore, the fundamental principle of non-refoulement, recognised as a provision of customary international law, is clearly breached in the current situation.[36] The policy of

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[32] Niamh Keady-Tabbal and Itamar Mann, 'Tents At Sea: How Greek Officials Use Rescue Equipment For Illegal Deportations' (*Just Security*, 2020) <https://www.justsecurity.org/70309/tents-at-sea-how-greek-officials-use-rescue-equipment-for-illegal-deportations/> accessed 8 July 2020; Eric Reidy, 'Greece Using Floating Tents To Deport Asylum Seekers: Report' (*The New Humanitarian*, 2020) <https://www.thenewhumanitarian.org/news/2020/05/26/Greece-asylum-seekers-floating-orange-tent-rafts> accessed 8 July 2020.

[33] Human Rights Watch 'Greece: Investigate Pushbacks, Collective Expulsions' (*HRW.org*, 2020) <https://www.hrw.org/news/2020/07/16/greece-investigate-pushbacks-collective-expulsions> accessed 16 July 2020.

[34] Universal Declaration of Human Rights (adopted 10 December 1948 UNGA Res 217 A(III) (UDHR) Articles 3, 25 and 26; Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights, as amended) (ECHR) Articles 5 and 8, Protocol 1 Article 2.

[35] NGO Aitima, 'Asylum Seekers On Hold: Aspects Of The Asylum Procedure In Greece' [2017] SSRN Electronic Journal; Boryana Gotsova, 'Rules Over Rights? Legal Aspects Of The European Commission Recommendation For Resumption Of Dublin Transfers Of Asylum Seekers To Greece' (2019) 20 German Law Journal. As an illustration, see: 'Meps Call For Investigation Into Killing Of Refugee On Turkish-Greek Border: Report - Turkish Minute' (*Dev.turkishminute.com*, 2020) <https://dev.turkishminute.com/2020/05/13/meps-call-for-investigation-into-killing-of-refugee-on-turkish-greek-border-report/> accessed 8 July 2020.

[36] UN High Commissioner for Refugees (UNHCR), 'The Principle of Non-Refoulement as a Norm of Customary International Law. Response to the Questions Posed to UNHCR by the Federal Constitutional Court of the Federal Republic of Germany in Cases 2 BvR 1938/93, 2 BvR 1953/93, 2 BvR 1954/93' (1994); OCHR 'Recommended Principles and Guidelines on Human Rights at International Borders' (2018) <https://www.ohchr.org/Documents/Issues/Migration/OHCHR_Recommended_Principles_Guidelines.pdf> accessed 7 August 2020; Livia Eldena Bacaian 'The protection of refugees and their right to seek asylum in the European Union' (2011) Institut Européen de l'Université de Genève <https://www.unige.ch/gsi/files/6614/0351/6348/Bacaian.pdf> accessed 10 August 2020.

immediate deporting of any migrants who cross the border, as well as the conditions in which they are detained in camps, clearly illustrate the depravation of asylum rights. A more precise case was the denial of asylum to at least 625 people, who were kept during more than two weeks in a camp, without any justification.[37] Between the absence of explanation and the detainment there exists convincing evidence that the management of the Greek migrant's crisis violates human rights. The European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT) has therefore sent a rapid reaction team to Greece to investigate how the migrants are being treated by the authorities.[38] The report published in November 2020 highlighted the need for Greek authorities to respect human rights obligations and the duty of care for every migrant on its territory. Even if the CPT acknowledged that the country is facing significant challenges with regard to the number of migrants entering Greece, it also recognised that the conditions of detention of certain camps amounted to "inhuman and degrading treatment".[39] Inadequate food, lack of hygiene, no appropriate support given to unaccompanied children and other appalling living conditions constituted serious and unacceptable human rights violations.[40]

Following these issues, the International Observatory of Human Rights calls on the Greek authorities to cease the illegal harassment of asylum seekers and migrants attempting to cross the Aegean; ensure that those affected by the change to the ESTIA scheme are adequately looked after; ensure the camps are as well-equipped as possible to counter the threat of coronavirus.[41] Moreover, an open letter from March 2020, signed by 256 Organisations, was addressed to the Prime Minister of the Hellenic Republic; President of the European Parliament; President of the European Council; President of the European Commission. For these organisations, the suspension of the right to seek asylum for all people entering the country 'violates the

[37] 'Greece: 625 Denied Right To Seek Asylum In March - HRW' (*InfoMigrants*, 2020) <https://www.infomigrants.net/en/post/23609/greece-625-denied-right-to-seek-asylum-in-march-hrw> accessed 7 July 2020. See also Nanda Oudejans, 'The Right To Have Rights As The Right To Asylum' (2014) 43 Netherlands Journal of Legal Philosophy.

[38] Council of Europe, 'Anti-Torture Committee Undertakes Rapid Reaction Visit To Greece To Examine Treatment Of Migrants' (2020) <https://www.coe.int/en/web/cpt/-/anti-torture-committee-undertakes-rapid-reaction-visit-to-greece-to-examine-treatment-of-migrants> accessed 10 July 2020.

[39] European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT) 'Report to the Greek Government on the visit to Greece carried out by the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT) from 13 to 17 March 2020' (2020) p 14 – 17, 28.

[40] Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights, as amended) (ECHR) Article 3; *M.S.S.* v *Belgium and Greece* [GC], App no 30696/09 (ECtHR 21 January 2011).

[41] Seth Farsides, 'Refugees Caught Between Turkish Politics And Greek Resistance' (*International Observatory of Human Rights*, 2020) <https://observatoryihr.org/news/remember-refugees-greece-update/> accessed 2 July 2020.

fundamental principle of non-refoulement, incurs international responsibilities for Greece and endangers human lives'.[42] They asked the Greek Government to annul its Emergency Legislative Decree, considered as illegal and unconstitutional; to stop returning people to States where their lives and freedom are at risk; to relocate asylum seekers to the mainland, especially unaccompanied minors and families with children; and to protect every person from acts of violence, victimisation and racism.[43] While reminding the EU accountability, and the need for a shared responsibility among EU member States in the management of this European crisis, they asked for effective and efficient measures to solve the migration issue. For them, a solution would be action from the European Commission to protect the right to asylum as enshrined in the EU law, for instance by asking Greece to assume its legal obligations. The implication of other EU Member States, which must increase resettlement of refugees directly from Turkey is also one of the demands, in respect of European democracy and the rule of law.[44]

From the above requests it is possible to draw the following conclusions. Firstly, urgent action is needed, while applying Article 78(3) of the TFEU. Secondly, the resettlement and relocation of asylum seekers must be done by the EU institutions and Member States. And thirdly, the suspension of the application of the right to asylum is not tolerable and infringes human rights law. The incessant fight between Greece and Turkey, leading to the implementation of measures putting at risk the life of asylum seekers, must be firmly condemned and sanctioned.[45] However during the COVID-19 pandemic these considerations have been set aside.

5. COVID-19: an aggravating factor in an already critical situation

In the specific context of the COVID-19 pandemic, the need for immediate evacuation, or at least better management, of overcrowded refugee camps in Greece has increased. Further human rights violations occurred as, during the lockdown, there has been a worrying expansion in cases of sexual harassments and reports of rape and domestic violence in the camp.[46]

International law requires safety and well-being of all people. Pursuant to the International

[42] '"Protect Our Laws And Humanity!" Open Letter By 256 Organizations' (*Human Rights Watch*, 2020) <https://www.hrw.org/sites/default/files/supporting_resources/joint_statement85_organizations_greece.pdf> accessed 7 July 2020.

[43] ibid.

[44] ibid.

[45] Antoine Pécoud, 'Book Review: At Europe's Edge: Migration And Crisis In The Mediterranean' [2020] International Migration Review.

[46] 'Diminished, Derogated, Denied' (Oxfam, Greek Council For Refugees 2020) <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/621011/bp-diminished-derogated-denied-greece-refugees-020720-en.pdf;jsessionid=5D8DD580E99970A9120DE293F875CCEB?sequence=1> accessed 7 July 2020.

Covenant on Economic, Social and Cultural Rights, it is necessary to ensure the 'prevention, treatment and control of epidemic, endemic, occupational and other diseases' for migrants and refugees and to provide 'the highest attainable standard of physical and mental health'.[47] The respect of these rights is compatible with overcrowded camps, totally lacking hygiene and unsafe. While violating human rights to dignity and health, the present living conditions in Greek islands cannot be justified on grounds of public health. It is well-stated at the international and European level that any restriction on rights for reasons of public health or national emergency shall be lawful, necessary, and proportionate as well as non-discriminatory.[48] As an illustration, if lockdown measures were lifted on the mainland in May 2020, restrictions remained in place in camps.[49] Pursuant to Article 26 of the 1951 Convention relating to the Status of Refugees and its 1967 Additional Protocol, '[e]ach Contracting State shall accord to refugees lawfully in its territory the right to choose their place of residence and to move freely within its territory subject to any regulations applicable to aliens generally in the same circumstances'.[50] The only exceptions that can be found in international texts concern very specific cases of threat to security.[51] Following this announcement, protests erupted at a Greek migrant facility,[52] leading to the sentencing of two Afghan men to six years and nine months in prison over charges of participating in riots.[53]

Putting camps under lockdown was maybe a good solution at first, but not in the long term, or at

[47] International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1976) 993 UNTS 3 (ICESCR) Article 12.

[48] See for instance: Council of Europe, 'Respecting Democracy, Rule Of Law And Human Rights In The Framework Of The COVID-19 Sanitary Crisis-A Toolkit For Member States (SG/Inf(2020)11)' (2020) <https://rm.coe.int/sg-inf-2020-11-respecting-democracy-rule-of-law-and-human-rights-in-th/16809e1f40> accessed 7 July 2020; Cassandra Emmons, 'International Human Rights Law And COVID-19 States Of Emergency' <https://verfassungsblog.de/international-human-rights-law-and-covid-19-states-of-emergency/> accessed 7 July 2020.

[49] 'Greece Extends Lockdown For Migrants, Asylum-Seekers While Restrictions Ease For Rest Of Country' (*Daily Sabah*, 2020) <https://www.dailysabah.com/politics/eu-affairs/greece-extends-lockdown-for-migrants-asylum-seekers-while-restrictions-ease-for-rest-of-country> accessed 7 July 2020.

[50] United Nations Convention Relating to the Status of Refugees (adopted 28 July 1951, entered into force 22 April 1954) 189 UNTS 137, Article 31.

[51] Mérick Freedy Alagbe, *Les camps dans les crises humanitaires : L'envers du décor* (Observatoire des questions humanitaires, Intitut de relations internationals et stratégiques 2016).

[52] 'Greek Migrant Center Near Turkish Border Sees Violent Protests As Coronavirus Sparks Delays' (*Fox News*, 2020) <https://www.foxnews.com/world/greek-migrant-center-near-turkish-border-sees-violent-protests-as-coronavirus-sparks-delays> accessed 7 July 2020; 'Rioting Breaks Out At Migrant Center As Pandemic Halts Asylum Process' (*Ekathimerini.com*, 2020) <https://www.ekathimerini.com/252585/article/ekathimerini/news/rioting-breaks-out-at-migrant-center-as-pandemic-halts-asylum-process> accessed 7 July 2020.

[53] 'Greece: 2 Migrants Jailed For Detention Center Riots' (*Aa.com.tr*, 2020) <https://www.aa.com.tr/en/europe/greece-2-migrants-jailed-for-detention-center-riots/1842321> accessed 7 July 2020.

least not with the current living conditions. In case of a long quarantine, tens of thousands of healthy people would be trapped with people infected by COVID-19, which would almost certainly lead to preventable deaths of numerous people. In April, 148 asylum seekers have tested positive for COVID-19 at a Greek hotel managed by the International Organisation for Migration.[54] Earlier, it was 20 asylum seekers who tested positive, in a 2,700 asylum seekers camp.[55] The Human Rights Watch organisation therefore proposed several measures in order to ensure the protection of public health during the COVID-19 pandemic. First of all, the displacement of people, vulnerable people in priority, to small-scale centres on the mainland would allow the application of the guidelines of the National Public Health Organisation and the World Health Organisation against the spread of the coronavirus. Second, the adoption of measure guaranteeing free access to healthcare, including testing and treatment for COVID-19. This would include the supply of adequate sanitary and hygiene products . Then, the provision of information and the prevention and treatment of COVID-19 must be applied, while implementing necessary responsive measures (e.g. self-isolation and quarantine areas).[56]

These measures do not seem to be the primary concern of Greece, which is trying to manage the flow of migrants and does not have the sufficient resources to take care of the living conditions in the camps. With these inherent deficiencies, addressing the responsibility of other actors is needed, in order to solve the current crisis.

6. Conclusion: Overcoming the crisis

It is a proven fact that refugees may have to break migration laws in order to seek asylum.[57] This was even recognised by the drafters of the 1951 United Nations Convention Relating to the Status of Refugees.[58] However, the criminalisation of smuggling (which is justified to some extent) and several actions related to migration mean that it is not anymore possible to reach Europe legally without identity papers.[59] Those who manage to cross the border are put in camps.

[54] 'Greece Must Evacuate Refugees And Migrants To Safety Amidst Covid-19' (*Euro-Med*, 2020) <https://euromedmonitor.org/en/article/3506/Greece-Must-Evacuate-Refugees-and-Migrants-to-Safety-Amidst-Covid-19> accessed 7 July 2020.

[55] ibid.

[56] 'Greece: Move Asylum Seekers, Migrants To Safety | Human Rights Watch' (*Human Rights Watch*, 2020) <https://www.hrw.org/news/2020/03/24/greece-move-asylum-seekers-migrants-safety> accessed 7 July 2020.

[57] International Justice Resource Center 'Asylum & The Rights of Refugees' <https://ijrcenter.org/refugee-law/> accessed 5 August 2020; Amnesty International 'Refugees, Asylum-seekers and Migrants' <https://www.amnesty.org/en/what-we-do/refugees-asylum-seekers-and-migrants/> accessed 5 August 2020.

[58] United Nations Convention Relating to the Status of Refugees (adopted 28 July 1951, entered into force 22 April 1954) 189 UNTS 137, Article 31.

[59] Muhammad Wajid Tahir, Rubina Kauser and Madeline Bury, 'Irregular Migration Toward Greece: Narratives Of Irregular Migrants' (2017) 56 International Migration; Eamon Aloyo and Eugenio Cusumano, 'Morally Evaluating Human Smuggling: The Case Of Migration To Europe' [2018] Critical Review of International Social and Political

Several scholars agree to say that this massive detention, is an evident violation of human rights.[60] The same reasoning applies to 'routine immigration detention'. [61] Even the Greek Council of State ruled on an absence of legal basis for keeping refugees and asylum-seekers on the Greek islands.[62]

EU hotspots in Greece represent for the international community a worrying fundamental rights issue, even if for Greece the first priority remains the stabilisation and defence of its borders. Faced with an increasing number of migrants, Greece is not, by itself, able to ensure the balancing of the various interests which may be at stake in a democratic society, while preserving the rights of these foreigners. The policies taken in order to safeguard the protection of its territory, whether or taking into consideration the recent COVID-19 crisis, have all demonstrated inadequacies and failures.

If Greece is not able to act unilaterally, it is necessary to consider the involvement of the EU. While preserving the integrity of Greece sovereignty, an efficient external intervention would present a possibility to, at least, alleviate the current crisis. However, several studies have defined the EU responses to the refugee crisis as a 'more containment, more restriction' logic.[63] This often means an increase of irregularity and illegality in migrants and asylum-seekers situations, an increase in smuggling. This is incompatible with the values represented by the EU, and with the human rights protection that the ECHR tends to achieve. This lack of effective enforcement of human rights is a clear evidence that the Greek asylum system fails to efficiently protect refugee rights.

A fair and effective asylum procedure is therefore needed. For non-governmental organisations it necessarily means a shared responsibility, between Greece and other EU States. However, to date, only few States provided help to solve the crisis. The European Commission future Migration and Asylum Pact will certainly be useful in order to solve the current crisis. This Pact could

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Philosophy; Sergio Carrera and Marco Stefan, *Fundamental Rights Challenges In Border Controls And Expulsion Of Irregular Immigrants In The European Union* (1st edn, Routledge 2020).

[60] Cathryn Costello, 'Overcoming Refugee Containment And Crisis' (2020) 21 German Law Journal; Etienne Piguet, 'The 'Refugee Crisis' In Europe: Shortening Distances, Containment And Asymmetry Of Rights—A Tentative Interpretation Of The 2015–16 Events' [2020] Journal of Refugee Studies.

[61] Philippe Bourbeau, 'Detention And Immigration: Practices, Crimmigration, And Norms' (2018) 7 Migration Studies; Jukka Könönen, 'The Waiting Game: Immigration Detention As The Waiting Room Of Immigration Law' [2019] Migration Studies.

[62] Evangelos Vassilakakis, 'Migration And Citizenship In Greek Law' [2014] SSRN Electronic Journal. European; 'Greece: Government Defies Court On Asylum Seekers' (*Human Rights Watch* 'How The Greek Policy On Migration Is Changing' (*European Data Journalism Network*, 2019) <https://www.europeandatajournalism.eu/eng/News/Data-news/How-the-Greek-policy-on-migration-is-changing> accessed 7 July 2020.

[63] See as an illustration Cathryn Costello, 'Overcoming Refugee Containment And Crisis' (2020) 21 German Law Journal.

represent the opportunity for the implementation of an EU Resettlement Framework and humanitarian corridors, while providing legal and safe routes for labour-related migration.[64]

[64] Catherine Wihtol de Wenden, 'A New European Pact On Immigration And Asylum In Response To The "Migration Challenge"' [2019] Fondation Robert Schuman Policy Paper <https://www.robert-schuman.eu/en/doc/questions-d-europe/qe-537-en.pdf> accessed 7 July 2020; European Parliament, 'Asylum And Migration Pact: Meps Push For Legal And Safe Avenues' (2020) <https://www.europarl.europa.eu/news/en/press-room/20200430IPR78208/asylum-and-migration-pact-meps-push-for-legal-and-safe-avenues> accessed 7 July 2020.

PRIVATE CORPORATIONS TO INFINITY AND BEYOND -GUIDELINES FOR A NEW SPACE AGE

Edwina Taylor[65]

Abstract

Who owns space? Whether this question is answered by no one, everyone or anyone, it is worth asking. Space law is at a turning point of its history. As technologies evolve, private companies and businesses have their eyes on resources and opportunities happening in outer space. This article aims to see what legal tools can be given to space law to confront its new challenges. One way could be to use the notion of *common heritage of mankind*, developed by the international law of the sea, and to create an international authority accordingly. Another way could be to grant legal personhood to space and to appoint representatives to defend its rights and interests at a global level.

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1. Introduction

Who owns space? In 2003, Mr Gregory W. Nemitz filed a complaint against the American National Aeronautics and Space Administration (commonly known as NASA). He claimed to have property rights towards an asteroid called ***Eros***. He tried to prove these so-called rights with a registration made online. As one of the many perks of the world wide web, this situation may seem relatively insignificant. It could have been one of the many questionable actions we make as humans which never go public. However, when NASA landed a spacecraft on ***Eros***, Mr Nemitz asked for a compensation of the violation of his property rights in the form of a parking or storage fee. Mr Nemitz quite obviously lost its claim, failing to prove any rights concerning ***Eros*** (asteroid n°433). Even if this trivial case can make us smile, the status of space raises essential questions.[66]

A few months ago, Elon Musk's corporation (SpaceX) sent two Nasa astronauts in orbit to join the International Space Station (ISS). If the launching of a space rocket can never be perceived as an ordinary event, what happened on May 30th is quite revolutionary. It demonstrates that space is now accessible to private corporations. It paves the way for potential space tourism, private exploration and private exploitation of space resources.[67] On their website, SpaceX mentions that *The Dragon* (the spacecraft used to transport Bob Behnken and Doug Hurley from and to the ISS) 'is capable of carrying up to 7 passengers to and from Earth orbit, and beyond. It is the only spacecraft currently flying that is capable of returning significant amounts of cargo to Earth, and is the first private spacecraft to take humans to the space station'.[68] Their intentions are apparent and ambitious. They state to have multiple goals such as space tourism, 'returning humans to our lunar neighbour' and 'making the humanity multiplanetary' by going to Mars and other planets of the solar system.[69]

As science and technologies evolve, space is reachable, perceptible and creates envy among many. We are no longer facing a middle-aged American who wants to possess a piece of the universe fourteen million miles away from his home on Earth, but powerful corporations which are spending billions of dollars wanting to make space worth investing in.[70] If the perspective of

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[66] Robert Kelly, 'Nemitz v. United States, a Case of First Impression : Appropriation, Private Property Rights and Space Law before the Federal Courts of the United States' (2004) 30 J Space L 297.

[67] Jonathan Amos, 'SpaceX launch: Nasa astronauts begin historic mission on private spaceship' (2020) BBC News <www.bbc.com/news/av/science-environment-52863779/spacex-launch-nasa-astronauts-blast-off-to-the-international-space-station> accessed 5 July 2020.

[68] SpaceX, 'Dragon. Sending humans and cargo into Space' <www.spacex.com/vehicles/dragon/> accessed 10 July 2020.

[69] SpaceX, 'Human Spaceflight. Making life multiplanetary' <www.spacex.com/human-spaceflight/> accessed 10 July 2020.

[70] Kelly (n 66).

going to Venus or Saturn for the holidays makes your eyes sparkle, very well. The purpose of this article is not to judge current or future opportunities but to analyse how the law governs what is beyond our blue sky. Maybe we can find patterns or models to apprehend space differently, to protect it before it is too late and before we realise that permanent danger has been done to natural objects (any resemblance to situations, real persons, living or dead, is, of course, purely coincidental). On Earth, the concern is more and more towards protection, and we must not forget this purpose while looking into the stars. As space becomes a reality close to human reach, we believe that law should rethink how to comprehend it as a whole.

In this work, we will look at the current and most emblematic international regulations concerning space. Then, we will try to see if some protective tools applied on Earth's elements could be transferred to outer space to explore it without damaging it. We aim to see what guidelines and legal requirements could be followed by public and private investors for the opportunities arising.

2. International Space Law

2.1 Background

Space law governs everything happening in outer space[71] from the sending of astronauts to the status of the Moon, the use of images taken by artificial satellites or questions surrounding space resources.[72] It is not an independent area of law. It falls within the scope of international public law.

Before space exploration and especially before the launch of Sputnik 1 in October 1957, there was no interest in making a legal scheme applicable to outer space. Science made space reachable, and legal thinking followed research and progress. The new technologies made air law insufficient, and as the beginning of the sixties approached, there was a clear need for a more developed and complex body of norms. The majority of current space activities and explorations are carried out within the orbit of the Earth and not much further, but that could change quickly.[73]

The geopolitical situation has massively influenced the creation and elaboration of space law.

[71] Disclaimer: all authors and scientists do not agree on the limit between air and space. For this work, we will use the word 'space' to indicate what is beyond the Earth's atmosphere.

[72] Francis Lyall and Paul B. Larsen, *Space Law: A treatise* (Ashgate 2009) 2.

[73] Bin Cheng, 'The Legal Regime of Airspace and Outer Space: The Boundary Problem Functionalism versus Spatialism: The Major Premises' (1980) 5 Annals Air & Space L 323, 328; Armand D. Roth, *La prohibition de l'appropriation et les régimes d'accès aux espaces extra*-terrestres (PUF 1992); Eligar Sadeh (ed), *Space Politics and Policy: An Evolutionary Perspective* (Kluwer Academic Publishers 2002) xi; Lyall and Larsen (n 72) 175; Frans G von der Dunk and Fabio Tronchetti (eds), *Handbook of Space Law* (Edward Elgar Publishing 2015) 1.

During the Cold War, space was subject to the envy of the USSR and the US, which made it a potential field of perpetual competition and confrontation. To end the uncertainty, the two great powers and the United Kingdom agreed on the first treaty concerning outer space in 1963. From the beginning, the purpose has always been to have a peaceful use of space. The aim of this agreement was 'to prohibit, to prevent, and not to carry out any nuclear weapon test explosion, or any other nuclear explosion, at any place under its jurisdiction or control: in the atmosphere, beyond its limits, including outer space; or underwater, including territorial waters or high seas (…)'[74].

Always rewriting itself, space law is now applicable to a significant number of activities and operations (satellites communication, space transportation, space station operations, private space flights, resource utilisation, trade). We need to bear in mind that space exploration has never only been a question about acquiring more knowledge and developing scientific understanding. It is a highly political matter which will be more and more on the agenda regarding public policy considerations.[75]

2.2 Legal Authorities

Because space law needs 'a high degree of international cooperation'[76], it is primarily regulated by the United Nations. It is the theatre to discuss questions and ideas relating to space and the forum to adopt corresponding legislation.[77] Of course, there are many regulations and relevant principles in national space law or European space law. Still, this article would be hundreds of pages long if we listed it all, so we decided to present only the five principle treaties drafted by the UN because they offer the essential precepts enacted in that matter. The current regime has to be adapted to the new possibilities encountering space. However, these five treaties set some milestones that will probably not be abandoned in the near future.[78]

2.2.1 The 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies[79]

[74] Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (adopted 5 August 1963, entered into force 10 October 1963) 480 UNTS 43.
[75] Sadeh (n 73) xi; von der Dunk and Tronchetti, *Handbook of Space Law* (n 73) 2-4, 21.
[76] von der Dunk and Tronchetti, *Handbook of Space Law* (n 73) 10.
[77] This has been primarily done by the UNCOPUOS (the United Nations Committee on the Peaceful Uses of Outer Space).
[78] Roth (n 73); Lyall and Larsen (n 72) 175; Ruwantissa Abeyratne, *Space Security Law* (Springer-Verlag Berlin Heidelberg 2011); Fabio Tronchetti, *Fundamentals of Space Law and Policy* (Springer 2013) 37-38; von der Dunk and Tronchetti, *Handbook of Space Law* (n 73) 8-9.
[79] Treaty on principles governing the activities of States in the exploration and use of outer space, including the moon and other celestial bodies (adopted 27 January 1967) 610 UNTS 205 (Outer Space Treaty).

The preamble of what is commonly called the *Outer Space Treaty* sets the tone regarding the position of the UN towards the exploration and potential use of outer space. It is the most crucial treaty of the five because it is the oldest but also because it is the one which sets the grounding principles.[80] Acknowledging that significant prospects are open by the fact that men can enter into space, the General Assembly of the UN sets some milestones:

1) The exploration of outer space should only be executed for peaceful purposes and should be managed in the interest of all countries. The document speaks of 'The common interest of all mankind'[81]. The exploration of space should benefit everyone regardless of their 'economic or scientific development'[82]. Space projects and activities should only exist to strengthen the 'friendly relations between States and peoples'[83]. The watchwords are cooperation and mutual assistance[84].[85]
2) Privatisation and appropriation of the Moon and other celestial bodies is forbidden.[86] Military bases and any kind of fortifications or weapons are also banned.[87]
3) International law applies on Earth as well as in outer space 'in the interest of maintaining international peace and security and promoting international cooperation and understanding'[88].
4) Astronauts are 'envoys of mankind'[89], and every State is required to assist and help them whenever necessary.
5) Every State is liable for governmental or non-governmental activities carried out in outer space and for every object sent beyond the atmosphere. It means that private actors are held accountable by the State they are established in.[90]

The treaty does not create the non-appropriation principle even if it mentions it. It was discussed in many resolutions predating this Act. During the Cold War, neither of the US or the USSR were sure to be first to seize the Moon or other celestial bodies. So, they both decided that no one could ever be first in that conquest by prohibiting ownership. If the Moon was a *res nullius*, it was

[80] Biswanath Gupta and Ekta Rathore 'United Nations General Assembly Resolutions in the Formation of the Outer Space Treaty of 1967' (2019) 17 Astropolitics 77.
[81] Outer Space Treaty, preamble.
[82] ibid, art I.
[83] ibid, preamble.
[84] ibid, art IX.
[85] Lyall and Larsen (n 72) 187.
[86] Outer Space Treaty, art II.
[87] ibid, art IV.
[88] ibid, art III.
[89] ibid, art V.
[90] ibid, art VII.

too dangerous because the first one to get there would be entitled to keep it. It was more secure to build space regulation around the pattern of *res communis* as it is for the seabed. A *res communis* can be used if this use does not diminish the benefit of others.[91]

The non-appropriation principle is now questioned, particularly concerning the orbital position of satellites and resources exploitation. Once a satellite occupies an orbit, other satellites cannot be on the same trajectory. For the installation of bases or colonies, it should not be too difficult because there seems to be enough room for everyone. Still, for the exploitation of resources, it is problematic because a consumable good cannot (by nature) be seen as a common good.[92]

The non-appropriation principle is set extensively and was the will of States participating in space exploration as well as non-space active countries. They wanted to limit the range of action of great powers, preserving their future rights towards space in the eventuality they join the party. Sovereign equality is a fundamental idea in international law, and it is reproduced similarly in space law. Industrialised countries recognise the importance of all existing and future States, which may be taking action in space exploration.[93]

Some authors think that when the treaties mention 'humanity', it is a simple formula. For us, this wording is used too many times to have a stylistic effect. Humanity designates present and future generations. The Outer Space Treaty has a noble body of principles and rules. Those enunciated in articles I to IV are binding for all States, including the ones that are not a signatory of the treaty because they passed into customary international law.[94] Still, it fails to install concrete limitations or obligations towards the sharing of benefits and the necessity for States to enact national legislation towards authorisation or supervision of space activities.[95]

2.2.2 The 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts and Return of Objects Launched into Outer Space[96]

The title of the treaty is relatively self-explanatory. Among other things, it concerns the obligation for every State to help and provide assistance for astronauts 'in the event of accident, distress or emergency landing, the prompt and safe return of astronauts and the return of objects launched

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[91] 'Chose commune' in Gérard Cornu and Association Henri Capitant des Amis de la Culture Juridique Française (eds), *Vocabulaire juridique* (9.éd, Quadrige/PUF 2011) 171.

[92] Armel Kerrest, 'Le principe de non-appropriation et l'exploitation de la Lune et des autres corps célestes' in Philippe Achilléas, *Droit de l'espace : télécommunication – observation – navigation – défense – exploration* (Larcier 2009) 344-345.

[93] Kerrest (n 92) 342-343; Gupta and Rathore (n 80) 78-79.

[94] Roth (n 73); Kerrest (n 92) 346; Lyall and Larsen (n 72) 180.

[95] Julian Hermida, *Legal Basis for a National Space Legislation* (Kluwer Academic Publishers 2004) 28-29; Roth (n 73) ch 3.

[96] Agreement on the rescue of astronauts, the return of astronauts and the return of objects launched into outer space (adopted 22 April 1968) 672 UNTS 119.

into outer space'[97].

2.2.3 The 1972 Convention on International Liability for Damage Caused by Space Objects[98]

The Liability Convention asserts that if the launching of any object into space causes damage (death, physical harm, deterioration of assets), there should be 'a full and equitable measure of compensation to victims of such damage'[99]. Each State is responsible for what is sent into space. If more than one particular country is involved, they are jointly liable. But, what if the damaged party is not a person or a State but space itself?

2.2.4 The 1975 Convention on Registration of Objects Launched into Outer Space[100]

This is a more practical treaty which states that any objects launched into space should be registered as such to be easily identified. It facilitates the liability regime established in the Liability Convention.

2.2.5 The 1979 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies[101]

This agreement recognises the critical role the Moon ought to play in the nearby future. Recent statements make the Moon an initial step for men to go to Mars. The purpose of the *Moon Agreement* is to 'prevent the Moon from becoming an area of international conflict '[102] and to organise the exploitation of its resources. Article 3[103] affirms that the use of the Moon and other celestial bodies can only fulfil peaceful purposes, while article 4 asserts that the Moon is 'The province of all mankind' [104] and should benefit everyone. It also states that 'Due regards shall be paid to the interests of present and future generations'[105].[106]

Scientific investigation concerning the Moon is freely allowed but with cautious. Some provisions insist on preventing 'the disruption of the existing balance of its environment ' [107]. They recall that the Moon and its resources are part of 'the common heritage of mankind' and insist that the Moon is not subject to national appropriation. It seems to concern only States, but in fact, private

[97] ibid.
[98] Convention on the international liability for damage caused by space objects (adopted 29 March 1972) 961 UNTS 187 (Liability Convention).
[99] Liability Convention, preamble.
[100] Convention on registration of objects launched into outer space (adopted 12 November 1974) 1023 UNTS 15.
[101] Agreement governing the Activities of States on the Moon and Other Celestial Bodies (adopted 5 December 1979) 1363 UNTS 3 (Moon Agreement).
[102] Moon Agreement, preamble.
[103] ibid, art 3.
[104] ibid, art 4.
[105] ibid.
[106] Lyall and Larsen (n 72) 182.
[107] Moon Agreement, art 7.

property is also pointed. Therefore, private entities and State's citizens have to respect this interdiction as well.[108]

2.2.6 Observation

The five UN treaties have undoubtedly ethical and moral values behind the principles they state. Cooperation - common interest - peaceful use - common heritage of mankind, these concepts are all well and good, but they have minimal legal effects.[109]

International space law is a much broader discipline. There are many other instruments in addition to those five UN treaties: bilateral or multilateral agreements, resolutions from intergovernmental space organisations, national laws or internal regulations. Unfortunately or not, a big part of this discipline is constituted of soft law (guidelines, resolutions, desired behaviour or political declarations which are often not binding)[110]. It does not mean it is completely ineffective because it holds political and moral engagement. But will it be sufficient to face new challenges?[111]

3. Challenges for a new space age

Space law is at a turning point in its history. Until now, it was prospective, creating principles and guidelines before they were necessary. However, many opportunities arose, and other actors want to join this space rush. If military aspects were predominant before, it is now the economic dimension which inspires the greatest passions. Some talk about reaching Mars, going back on the Moon, establishing colonies and sending tourists while others want to abolish the non-appropriation principle to make private programs more exciting and worth investing in. The UN Treaties did not consider private actors as a real issue. 'Non-governmental entities' are only mentioned briefly. The texts are dated and considered ineffective or incomplete. Law has to adapt itself to challenges never encountered by giving detailed rules of conduct and maybe by creating a regulatory institution to control public and private operations. If many difficulties exist (orbital space debris known as space junk, security, traffic management, etc.), we decided to highlight two

[108] Leslie I. Tennen, 'Article II of the Outer Space Treaty and the Use of Extraterrestrial Resources' in Armel Kerrest (ed), *L'adaptation du droit de l'espace à ses nouveaux défis: Liber amicorum: mélanges en l'honneur de Simone Courteix* (Pedone 2007) 312 ; Kerrest (n 92) 347-352; Lyall and Larsen (n 72) 184-185.

[109] Mireille Couston, 'SPATIOETHIQUE Réflexions sur la teneur éthique du droit spatial' in Armel Kerrest (ed), *L'adaptation du droit de l'espace à ses nouveaux défis : Liber amicorum : mélanges en l'honneur de Simone Courteix* (Pedone 2007) 74.

[110] 'Soft Law' in Jonathan Law (ed), *A Dictionary of Law* (9th edition, Oxford University Press 2018) 638.

[111] Vladimir Kopas, 'Origins of space law and the role of the United Nations' in Christian Brünner and Alexander Soucek (eds.), *Outer Space in Society, Politics and Law* (Springer Wien New York 2011) 232 ; Fabio Tronchetti, 'Soft Law' in Christian Brünner and Alexander Soucek (eds.), *Outer Space in Society, Politics and Law* (Springer Wien New York 2011) 619.

of them.[112]

3.1 Resources exploitation & sustainable development

Scientists are studying the possibility to extract and exploit resources existing on the Moon or asteroids (rare gazes and metals). This kind of venture will not stay long in the hands of scientists, and private entities are increasingly interested in the commercial prospects entailed. For them, the only way to go would be the possibility to make profits and have property rights towards what could be found on celestial bodies. After all, the Earth's exploration and the many discoveries realised in the 15th and 16th centuries were triggered by economic ambitions. Why should it be different for space?[113]

On Earth, sustainable development and environmental protection are in the spotlight. The precautionary principle works its way in international law. It implies that to anticipate is better than to adapt or to cure. The purpose of this protective movement is to preserve space but also to prevent contamination of the near-earth environment.[114]

3.2 Demands from developing countries

There are incrementally more States creating space programs. The time where there were only a few actors involved is over. Developing nations do not want to be set apart. They refuse to see the inequalities existing on Earth be repeated. With the introduction of the 'common heritage of mankind' notion, they wish to see a fair share of resources. Space activities have to be done 'for the benefit and in the interests of all countries'. Their lack of economic or technological means does not imply they should not benefit from the knowledge and wealth resulting from space exploration and exploitation.[115]

We will now see if there are schemes we can use to oversee those potential problems or if we can think of other solutions to protect space environment and to ensure that there is no injured party

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[112] Armel Kerrest, 'Le droit de l'espace face aux dangers de privatisation et d'unilatéralisme' in Armel Kerrest (ed), *L'adaptation du droit de l'espace à ses nouveaux défis: Liber amicorum : mélanges en l'honneur de Simone Courteix* (Pedone 2007) 13-33; Christophe Vent, 'The economic dimension' in Christian Brünner and Alexander Soucek (eds.), *Outer Space in Society, Politics and Law* (Springer Wien New York 2011) 55; Edith Walter, 'The privatisation and commercialisation of outer space' in Christian Brünner and Alexander Soucek (eds.), *Outer Space in Society, Politics and Law* (Springer Wien New York 2011) 506; Joseph N. Pelton, *The New Gold Rush. The Riches of Space Beckon* (Springer 2017) 159-161.

[113] Kerrest, 'Le principe de non-appropriation et l'exploitation de la Lune et des autres corps célestes' (n 92) 341; Lyall and Larsen (n 72) 187-190.

[114] Alain Pompidou, *The Ethics of Space Policy* (UNESCO World Commission on the Ethics of Scientific Knowledge and Technology – COMEST 1999) 6; Lyall and Larsen (n 72) 191, 280, 291.

[115] Roth (n 73) 111; Francis Lyall, 'On the security of the broad principles of space law' in Armel Kerrest (ed), *L'adaptation du droit de l'espace à ses nouveaux défis : Liber amicorum : mélanges en l'honneur de Simone Courteix* (Pedone 2007) ; Yvonne Schmidt, 'International space law and developing countries' in Christian Brünner and Alexander Soucek (eds.), *Outer Space in Society, Politics and Law* (Springer Wien New York 2011) 696.

throughout this adventure.

4. Framework and guidelines

'When a new field of law appears, it is always very useful to try to see if there is a possibility to make comparisons and to use the possible similarities to consider analogies with other domains and take advantage of precedent practice to enlighten the new field of activities'[116]. The seabed and Antarctica have respectively been a framework for space and celestial objects.[117]

4.1 International Law of the Sea

This framework offers excellent prospects to apprehend space. The greatest of them all is the notion of 'common heritage of mankind', developed when the maritime floor and its resources became an object of desire. This notion has been initiated by the Maltese representative at the UN to make sure the seabed was only used for peaceful purposes. It resulted in the Montego Bay Convention[118], which developed peculiar zones of protection and the notion of common heritage of mankind. Since the Moon Agreement and its article 11, the idea of common heritage of mankind is also applicable to space.[119]

What does it mean when a territory is qualified as a 'common heritage of mankind'? There is no agreed definition, but there are standard features whether the definition applies to the high seas, some parts of Antarctica or outer space:

1) Non-appropriation. The resources of the designed area belong to every member of the international community. It is forbidden for a sovereign State to revendicate a portion of it.
2) A fair share of resources. The resources (or at least the resultant profits) have to be used for the benefit of all humankind. They should be shared equitably between all nations, regardless of their involvement in the process. It is essential for developing countries because it is a protective tool against overexploitation by industrialised nations. It makes them accountable for their actions and increases their degree of responsibility.
3) Representatives of every State. All countries are involved in the management of the resources. They share the benefits of the exploitation but also the burdens of their administration.

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[116] Armel Kerrest, 'Space law and the law of the sea' in Christian Brünner and Alexander Soucek (eds.), *Outer Space in Society, Politics and Law* (Springer Wien New York 2011) 247.
[117] Roth (n 73).
[118] United Nations Convention on the Law of the Sea (adopted 10 December 1982) 1833 UNTS 3.
[119] Roth (n 73); André Oraison, 'Remarques sur la conservation et la gestion durable des ressources naturelles des grandes profondeurs océaniques. La notion de 'patrimoine commun de l'humanité' en droit international de la mer et la nécessité de son élargissement aux divers éléments de notre environnement', (2006) 3 Revue Européenne de Droit de l'Environnement 275, 275-278.

4) Peaceful use & scientific freedom. Weapons storage or use are strictly forbidden, but scientific exploration and studies are more than welcome.
5) Preservation of the area for future generations. There is a long term goal in the idea of common heritage. It is aiming to preserve the environment for present and future generations, making humanity a continuum.[120]

The common heritage of mankind is very similar to the *res communis*. The only differences lay in the importance of the sharing of benefits and the fact that the international community intervenes upstream for the common heritage of mankind. For a *res communis,* the area and its resources can be used without excess, and the international community acts only when a problem arises. Not everyone in the doctrine adheres to apply the notion of common heritage of mankind to space. Some authors consider it too vague or ineffective because of the small number of States which ratified the Moon Agreement. On the contrary, we believe this notion is an excellent basis to enact ground rules for the extraction, trade and use of space resources.[121]

To monitor sea exploitation, an International Seabed Authority was created. Its role is to coordinate the State's actions and to preserve and manage resources by acting in the name of the whole of humanity. The seafloor is handled collectively. For this system to work out, States must cooperate, collaborate and accept to give up a part of their sovereignty. Although this sounds very democratic and protective of developing nations, industrialised countries have created the possibility to block any recommendation which may adversely affect them.[122]

What about space? The idea of common heritage of mankind, as we just presented it, is also applicable to outer space, the Moon and other celestial objects. However, there is no international organisation to coordinate everything yet. Though, it is not for lack of trying. The UN repeatedly proposed to create a global space organisation to have an overall view of the remaining challenges. Maybe it is about time to bring this idea back to life and to overcome individualistic fears and economic interests. As history showed us with the formation of the ISS, massive international cooperation is possible if there is political will.[123]

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[120] Oraison (n 119) 279-281; Nadia Belaidi and Agathe Euzen, 'De la chose commune au patrimoine commun. Regards croisés sur les valeurs sociales de l'accès à l'eau' (2009) 45 De Boeck Supérieur-Mondes en développement 55, 57 ; Schmidt (n 50) 690-697; Chelsea Bowling and others, 'The Common concern of Humankind: A Potential Framework for a New International Legally Binding Instrument on the Conservation and Sustainable Use of Marine
Biological Diversity in the High Seas' <https://www.un.org/depts/los/biodiversity/prepcom_files/BowlingPiersonandRatte_Common_Concern.pdf> accessed 10 August 2020.

[121] Cheng (n 73); Naman Khatwani, 'Common Heritage of Mankind for Outer Space' (2019) 17 Astropolitics 89, 90.

[122] Oraison (n 199) 280-284.

[123] Juan Manuel de Faraminan Gilbert and Claudio Zanghi, 'L'organisation mondiale de l'espace: un défi oublié ? ' in Armel Kerrest (ed), *L'adaptation du droit de l'espace à ses nouveaux défis: Liber amicorum: mélanges en l'honneur de Simone*

4.2 Antarctica

As space, Antarctica is difficult to access and hostile to human presence. As space, Antarctica is full of rare resources. As space, Antarctica is essential for maintaining environmental balance. However, the continent still has issues relating to sovereignty and demilitarisation. Other nations revendicate parts of it. This framework can show us that it is possible to resolve problems concerning resources while letting the sovereignty issues apart. The Antarctic Treaty of 1959[124] (Treaty of Washington) provides for the peaceful use of the area as well as the freedom of scientific investigation. The Protocol on Environmental Protection of 1991[125] prohibits mining and activities with a negative environmental impact. Antarctica is thereof often considered to be part of the common heritage of mankind even if it is never expressly told and even if the non-appropriation component is absent. It means that States do not have free access to the resources and that they must ensure an equitable sharing of the profits made. Developing countries wish to see the same pattern applied to space mining. Again, it calls for international management and the creation of a relevant institution.[126]

4.3 What if space was a person?

The right for a clean environment is consecrated in more than eighty constitutions or human rights declarations worldwide. Movements towards the protection of nature increase on Earth, and we believe that it is just a question of time before those considerations are held concerning space, at least for the near-Earth environment. Some of the protective mechanisms developed on Earth adopt an ecocentric perspective by directly conferring rights to nature. Rivers, mountains or forests across the globe have recently been granted the status of a legal person either through legislation or court decisions.[127]

'The personification of nature is not new. Humans have long considered their environment or some of its main components – the sun, the Moon, the Earth, the ocean, the rain, the river, the lake – as living entities or even gods. These beings, however, were outside or above the law. Now that our environment is deteriorating despite all the laws and treaties adopted to protect it, we feel that we ought to defend its existence, not just for our sake but also for its own survival. Just

Courteix (Pedone 2007) 161-173.

[124] The Antarctic Treaty (adopted 1 December 1959) 402 UNTS 71.

[125] Protocol on Environmental Protection to the Antarctic Treaty (adopted 4 October 1991) 2941 UNTS 3.

[126] Kerrest, 'Le principe de non-appropriation et l'exploitation de la Lune et des autres corps célestes' (n 92) 353-354; Alexander Soucek, 'The Polar Regions' in Christian Brünner and Alexander Soucek (eds.), *Outer Space in Society, Politics and Law* (Springer Wien New York 2011) 277; Khatwani (n 121) 95-97.

[127] Gabriel Eckstein and others, 'Conferring legal personality on the world's rivers : A brief intellectual assessment' (2019) 44 Water International 804; Elizabeth Jane Macpherson, *Indegenous water rights in law and regulation. Lessons from Comparative Experience* (Cambridge University Press 2019) 34-39.

as oppressed minorities throughout history have become right-holders to defend their identity, nature is now being granted rights of its own. It is becoming a legal person like corporations, public agencies or civil associations.'[128]

Granting legal personhood to something means granting three specific rights: property rights, contractual rights and the right to go to court. It gives a voice to natural objects to protect their interests directly. Obviously, an old tree or a mountain cannot detach itself from the ground and sit quietly on the court's benches. For this system to be effective, custodians or guardians need to be appointed. They would be there to represent the right holder, to give it a voice and defend it. They would judge if human activities interfere with nature's rights and deliver permits for certain operations.[129]

It requires implementing a whole new system with independent judges and a high authority with the ability to settle disputes. This institution could maybe be built similarly as the International Tribunal for the Law of the Sea.

A declaration of the rights of Mother Earth[130] inspired by the Universal Declaration of Human Rights and the Earth Charter has recently been proposed. Although this declaration has not been adopted, it is very informative to apprehend what could be done about the utilisation of natural resources. It emphasises the importance of the protection of nature and the necessity for the law to recognise nature's rights to prevent climate change and other negative impacts. It asserts that humans have a special responsibility to prevent harmful damages and protect the environment they evolve in.[131]

What if we do not wait until it is too late? What if granting space some rights was the best scheme to protect it and prevent exaggerations while letting exploration and reasonable use occur? We would need to define precisely the outline of this new legal person and to appoint guardians or representatives to act in its name. The best would certainly be to create an international organisation or NGO to act as a custodian in order to represent and protect space or some more specific areas.[132]

5. Conclusion

[128] Eckstein (n 127).
[129] ibid. Herman Kasper Gilissen and others, 'Towards a Rights-Based Approach in EU International River Basin Governance? Lessons from the Scheldt and Ems Basins' (2019) 44 Water International 701.
[130] Proposal Universal Declaration of the Rights of Mother Earth < https://pwccc.wordpress.com/programa/> accessed 3 August 2020.
[131] Peter Burdon, 'The Rights of Nature: Reconsidered' (2010) 49 Australian Humanities Review 69.
[132] Eckstein (n 127); Gilissen (n 129).

Who owns space and its resources? At this particular moment, no one can, nor Mr Nemitz or some billionaire. The five founding treaties of space law drafted by the UN ensure this impossibility. However, not everyone is satisfied with this statement and many wish to see it abolished to make profits via space activities.

What are the solutions to make the coexistence between private corporations and movements towards the protection of space possible?

Firstly, we could consider developing the *common heritage of mankind* principle created by the international law of the sea. As we have seen, it is possible to mobilise it with or without its non-appropriation component if sovereignty revendications continue to grow further (see Antarctica). Private appropriation would not mean the impossibility of protection.

Secondly, we could explore the possibility to create a brand new framework following the example of the Gange in India or the Whanganui River in New Zealand which have been granted legal personhood. We could transform space into a legal person so an international organisation could sign contracts in its name or represent its interests in court. That way, space would have equal arms to confront private corporations.

We believe these two propositions are the best suited to accomplish the current challenges of space law. The potentiality of global harm calls for a global approach. It would allow scientific exploration and sustainable development while controlling the exploitation of materials present in outer space, on the Moon and on other celestial bodies as well as preventing military use. These patterns will not adversely affect developing countries which may not have the technological or economic resources yet to get on board.

Whatever framework we choose, we will need a pinch of imagination but also and more importantly, a handful of political will. Change will not be easy, and the difficulties seen while the climate conferences about Earth wellbeing are not reassuring. However, it is not impossible. International collaboration is possible at a high level. Indeed, it was a monstrous mission to build the International Space Station, but it now exists.[133] The role of private actors has to be thought about carefully. There is a risk to never see space as we currently know it, but there is also a magnificent opportunity of reform. The legal tools exist. What remains to be done is to use them correctly. Hopefully, the continuation and success of space activities also depend on the creation of new legislation, so negotiation has to be done at some point.[134] Reforming the actual rules of space law will necessitate political consensus and a high degree of cooperation between States

[133] Alexander Soucek, 'International Law' in Christian Brünner and Alexander Soucek (eds.), *Outer Space in Society, Politics and Law* (Springer Wien New York 2011) 389.

[134] Tronchetti, *Fundamentals of Space Law and Policy* (n 78) 81-84.

and private actors whether or not they have the means to participate in this new space rush.

"We set sail on this new sea because there is new knowledge to be gained, and new rights to be won, and they must be won and used for the progress of all people. For space science, like nuclear science and all technology, has no conscience of its own. Whether it will become a force for good or ill depends on man (…). I do not say that we should or will go unprotected against the hostile misuse of space any more than we go unprotected against the hostile use of land or sea, but I do say that space can be explored and mastered without feeding the fires of war, without repeating the mistakes that man has made in extending his writ around this globe of ours". (John F. Kennedy, *Moon Speech*, 1962)[135]

[135] John F. Kennedy, 'Moon Speech' (12 September 1962) <https://er.jsc.nasa.gov/seh/ricetalk.htm> accessed 20 August 2020.

THE ROME II REGULATION, ARTICLE 4 AND TRANSNATIONAL CORPORATE ACCOUNTABILITY FOR VIOLATIONS OF HUMAN RIGHTS

Sotiris Paphitis[136]

Abstract

The Rome II Regulation regulates the applicable law to alleged breaches of non-contractual obligations that reach the courts of EU member states. Such cases have been increasingly used as a means to hold accountable Multinational Corporations (MNCs) for human rights violations they commit through their subsidiaries in third states. The main rule in this Regulation stipulates that the law to be applied by the courts is the law of the place where the damage first occurred (lex loci delicti/damni). Consequently, in the cases analysed in this article, the applicable law is that of the non-EU host state. This article argues that the lex loci damni rule is unsatisfactory from a practical point of view, since the application of foreign laws is cost ineffective. Most importantly though, the application of third-state law inhibits the effective protection against corporate violations of human rights. As a result, it is believed that an exception from the main rule in Rome II must be established just as it is done for cases concerning, among others, environmental damages. The last part of this contribution seeks to address concerns that the extraterritorial application of EU human rights standards would constitute judicial imperialism.

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1. Introduction

This article is concerned with the regime determining the law to be applied in tort and delict cases as it is expressed through Article 4 of the Rome II Regulation.[137] It attempts to establish the extent to which this response is satisfactory with regards to the activities of Multinational Corporations (MNC) outside of the EU. More specifically, it deals with the possibility of MNCs escaping liability for human rights violations they commit through their third-country subsidiaries. The law under examination here, Article 4 of the Rome II Regulation, provides that in cases where a plaintiff brings a civil claim before an EU member state court, the law to be applied must be the law of the state where the damage first occurred (*lex loci damni/delicti*). The basis for this Regulation is Title V, Article 81(2)(c) of the Treaty on the Functioning of the European Union,[138] which requires the adoption of measures promoting the compatibility of conflict of laws rules, by member states. This is done in order to ensure the 'establishing an area of freedom, security and justice'.[139] This rational is further reflected in the sixth paragraph of the Regulation's preamble which states that:

The proper functioning of the internal market creates a need, in order to improve the predictability of the out- come of litigation, certainty as to the law applicable and the free movement of judgments, for the conflict-of-law rules in the Member States to designate the same national law irrespective of the country of the court in which an action is brought.[140]

In the context of corporate accountability, these situations occur when a third-country subsidiary of an EU-domiciled MNC commits a tortious act or any other violation of a fundamental right that gives rise to a civil claim. Note that for the rest of this article both of these previously mentioned instances will be referred to as 'torts'. In such instances establishing jurisdiction over both parent and subsidiary is the preferred course of action since the subsidiary alone may be missing the necessary documentary evidence to prove one's claim,[141] or may lack sufficient funds to compensate the plaintiffs.[142] According to a 2014 study on the EU's access to justice regime,

[137] Regulation (EC) No 864/2007 of the European Parliament and of the Council of 11 July 2007 on the law applicable to non-contractual obligations (Rome II) [2007] OJ L 199/40.
[138] OJ 2012 C 326/47.
[139] See Article 3(2) of the Treaty on European Union and Articles 67(1), (4), 81 of the Treaty on the Functioning of the European Union.
[140] Rome II (n 137) Preamble, paragraph 6.
[141] Rolf H. Weber and Rainer Baisch, 'Liability of Parent Companies for Human Rights Violations of Subsidiaries' [2016] 27 *European Business Law Review* 669, 694-5.
[142] Yilmaz Vastardis Anil and Rachel Chambers, 'Overcoming The Corporate Veil Challenge: Could Investment Law Inspire The Proposed Business And Human Rights Treaty?' (2018) 67 *International and Comparative Law Quarterly* 389, 393.

the application of Article 4 may create hurdles for plaintiffs: if the host State: either does not recognize, or limits, vicarious or secondary liability (including parent company liability); requires claimants seeking remedies in tort to meet a higher burden of proof; provides stricter immunities than is provided in the laws of the forum State; or limits the remedies that claimants can be granted.[143]

In this article a thorough examination of the problems Article 4 presents will be undertaken. It will then be argued that a clear exception to *lex loci delicti* has to be established when the effective protection of human rights is at stake due to corporate violations. Throughout this article, the following assumptions are held, that both subsidiaries and parent companies are parties in the litigation and that the subsidiaries examined have their registered office and seat within a single third country. In arguing for this amendment this study will attempt to address concerns regarding the dangers of judicial imperialism and violations of the national sovereignty of host states if EU member states' courts were to apply their own laws for acts that took place outside of their own national jurisdiction. The conclusion will be reached that it is possible for the EU to strike an appropriate balance between effective human rights protection and corporate accountability on the one hand, and respect to other nations' sovereignty on the other.

2. The Process of bringing a MNC to court

For the purposes of this contribution, it is quite straightforward for a court in an EU member state to establish jurisdiction over a MNC, even for activities that took place in a third country. Such instances are covered by the Brussels I Regulation (Recast) (BIR) which allows for the exercise of jurisdiction over an EU-domiciled defendant.[144] For corporations this means having their statutory seat, central administration or principal place of business in that member state.[145] Nonetheless, this does not guarantee that the national court will be able to exercise jurisdiction over a third-country subsidiary, due to the separate legal personality doctrine. This means that the subsidiary company is a legal personality of its own, with its basis in the third state where it has been incorporated. Therefore, given that parent and subsidiary are two separate entities with only the former falling within the territorial jurisdiction of the Member State, establishing jurisdiction over the foreign subsidiary comes with its own set of hurdles. According to Article 6 of the BIR, whether a court

[143] Filip Gregor & Frank Bold, *The EU's Business: Recommended actions for the EU and its Member States to ensure access to judicial remedy for business-related human rights impacts* (Access to Justice, 2014) 10.

[144] Regulation (EU) No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters [2012] OJ L 351/1, art 4.

[145] ibid, art 63.

has jurisdiction or not over a third-country defendant is left to be determined by the private international law rules of each member state. However, the effectiveness of this multiplicity of approaches does not fall within the scope of this contribution. What this article seeks to examine is the applicable law in those cases where jurisdiction is established.

Interestingly though, the European Court of Justice (ECJ) has rejected *forum non-conviniens* considerations on the basis that a non-EU forum would be more appropriate.[146] This doctrine permits courts to decline hearing a case, where they see that a different jurisdiction would be more suitable.[147] As a result, member states' national courts cannot reject hearing a case on the basis that it could be tried in a non-EU *forum*. This is best exemplified by the case of *Owusu v. Jackson*, where the facts giving rise to the claim took place in Jamaica, which was also the base for the majority of the defendants, yet the ECJ prevented English courts from relying on the *forum non-conviniens* doctrine. Hence, even though the nexus of facts in this case demonstrated a closer connection with Jamaica, rather than England, the English court was not allowed to reject jurisdiction on the basis that Jamaica was a more suitable forum. Naturally, having established jurisdiction, the law which was applied by the High Court of England and Wales was still that of Jamaica.

For the purposes of this piece, it is necessary to establish the rationale behind the rule in Article 4 of the Rome II Regulation. In other words, what are the reasons for having national courts within the EU applying third-country legal rules and whether that is preventive towards holding MNCs accountable for their activities overseas.

As stated above the basic rule of the Rome II Regulation is that for tortious claims, the law to be applied is the law of the place where the damage first occurred.[148] This of course is not what most plaintiffs seek to achieve. This *means that regardless of where the claimant is resident at the time of trial, the law to be applied is that of the locus damni*. Therefore, according to Article 4(2) of the Regulation the location of the parties cannot affect the law to be applied, the only place that is relevant for the purposes of this Regulation is where the damage first occurred. Lastly, paragraph 3 of this article offers an 'escape clause' for cases where the tort is manifestly more closely connected with a country other than the one provided in the previous parts of this article. According to the Regulation such a connection 'might be based in particular on a pre-existing relationship between the parties, such as a contract, that is closely connected with the tort/delict in question.'[149]

[146] Owusu v. Jackson (Case C-281/02 [2005] ECR 1383), 1462.
[147] C. M. V. Clarkson & Jonathan Hill, *The Conflict of Laws* (4th edn, OUP 2011) 104.
[148] Rome II (n 137), art 4.
[149] ibid.

Nonetheless, case law suggests that Article 4(3) should be applied 'exceptionally'.[150] Moreover, van Calster points out that in the context of MNCs and their corporate social responsibility demonstrating this closer relationship is problematic, given the occurrence of the damage abroad. [151] Given the strictness of this threshold, one could conclude that Article 4(3) is insufficient in allowing for both corporations to be tried under the same law.

The *lex loci damni* rule has some clear advantages over its alternatives. On the one hand it helps in facilitating legal certainty. In most cases, parties will be aware of the law applicable to a tortious act once the damages it has caused are made clear.[152] In the alternative, the situation would be much more obscure in cases where the law of the state where the company is based was to be applied. This is because MNCs may have several corporate bases and registered offices in many EU nations, which would give the parties the option to law shop. In turn, this would leave the question of the applicable law unanswered until a case was filed at the courts of a specific country.

Additionally, there is also the argument that the state where the damage has occurred often has an interest in seeing the case tried under its laws. This happens for a multiplicity of reasons. For once, in the context of MNCs, host states want to ensure that foreign corporations will be tried under their laws. Investing in a different country loses its appeal if the investors' actions would still be governed by the laws of their country of origin. Arguably, there would not be a reason for transferring one's operations elsewhere. However, as it will be shown below, these arguments should not be accepted easily with regards to potential rights violations. In other words, impunity should not constitute grounds for an investment. Instead, in cases where the application of a third-country legislation would give rise to a right's violation or would leave one such violation without a satisfactory remedy, there must be an application of those national laws giving effect to European legislation as a matter of policy.

3. The Need for Amendments

Having seen the structure of Article 4 and its rationale, it is now necessary to examine the weaknesses of the *lex loci damni* rule. The obvious starting point is the principle of *iura novit curia* (the court knows the law). According to Sluiter and Polm this maxim can 'hardly be observed if

[150] Stylianou v Toyoshima [2013] EWHC 2188 (QB) (Sir Robert Nelson J) [61], [64];
Fortress Value Fund v Blue Skye Fund [2013] EWHC (Comm) 1486 [47].

[151] Geert Van Calster, 'The Role of Private International Law in Corporate Social Responsibility' (2014) 3 *Erasmus Law Review* 125, 130.

[152] Göran Sluiter & Sjors Polm, 'Putting an End to the Application of Foreign Law in Cross-Border Tort Cases for Serious Human Rights Violations?' (14 November 2019, Rethinking Secondary Liability for International Crimes) <https://rethinkingslic.org/blog/tort-law/55-putting-an-end-to-the-application-of-foreign-law-in-cross-border-tort-cases-for-serious-human-rights-violations> accessed on 11 August 2020.

foreign law needs to be applied.'[153] Indeed, in realistic terms, courts in such cases are asked to apply legal rules with which they have probably never come in contact with, let alone having the expertise and knowledge required for their effective administration. Furthermore, problems are not limited to the *forums,* but more importantly to the laws they are asked to apply. Steinitz argues that Article 4 of the Regulation requires national courts within the EU to apply the law of what will often be an underdeveloped, low-income nation, ill-equipped to deal with modern mass tort litigation.[154] The importance of this observation ought to be highlighted as it leads to the conclusion that the application of member states' laws would not only be beneficial from a substantive, rights-based perspective but more importantly it would provide the parties with more suitable means to assert those rights (i.e. more developed mechanisms for mass litigation and civil liability principles). As a result, plaintiffs whose rights have been violated are left exposed to fend against a corporation with far greater resources than what they have. Not only that, but they are also tried under laws which will most likely be inadequate in providing them with justice, administered by courts with little or no experience in those legal rules. All of the above paints a very dim picture for anyone seeking to hold a MNC accountable for human rights violations committed through its subsidiaries.

Case law has also indicated that in certain cases the damage can occur in multiple places at the same time. This raises questions regarding the applicable law. Having more than one *loci damni* means that there is more than one potential set of rules to be applied to the facts. According to the Regulation's Explanatory Memorandum: 'The rule entails, where damage is sustained in several countries, that the laws of all the countries concerned will have to be applied on a distributive basis, applying what is known as "Mosaikbetrachtung" in German law.'[155] However, this solution only seems to worsen all of the abovementioned problems. In such cases, courts will be faced with multiple different laws which were previously unknown to them and which may produce different, even conflicting, outcomes for the different damages in the same claim. From a less theoretical point of view, the work of the courts is further complicated by their obligation to apply multiple laws, which in turn increases both the time and cost of adjudication. More worryingly though, this rule goes against the foundational logic of the Regulation since it increases complexity and obscures legal certainty. This increase in time not only impedes the sound administration of justice

[153] ibid.

[154] Maya Steinitz, *The Case for an International Court of Civil Justice* (CUP 2019) 95;
Michael Anderson, 'Transnational Corporations and Environmental Damage: Is Tort Law the Answer' (2002) 41 *Washburn Law Journal* 399, 418.

[155] Explanatory memorandum from the Commission, accompanying the Proposal for Rome II, COM(2003) 427 final (Explanatory Memorandum) 11.

but it also carries no guarantees with regards to the quality of the outcome.

In addition, according to Roberts and Ocoli, the solution currently provided to this question is not a feasible one. Instead, they argue that in such cases the court should only apply a single set of laws.[156] Although they then state that the law to be applied in such cases should be that of the *forum* where the principal damage has occurred, this contribution takes a different stance. Their suggestion still faces the risk of applying an ill-equipped set of rules. Further, it is possible that the approach the two academics take will perpetuate uncertainty, since there might not be a clear answer regarding the place of principal damage. Moreover, individual places of damage may have no connection with the place where the principal damage has occurred. Therefore, applying the law of one single place of damage may be regarded as an illogical solution.

Nevertheless, there is still merit in their proposal, the law would be made more efficient if it required a single set of rules to be applied. This article proposes that the law to be applied should be that of the habitual residence of the tortfeasor's parent company. Such an approach can be justified 'on the basis that it should be regarded as the country of origin from which the direct damage emanates.'[157] This approach is also justifiable from a commercial point of view since pleading and proving a single foreign law is expensive on its own,[158] let alone having to repeat the same procedure multiple times for the same case. Doing so without having any assurances regarding the quality of the result would mean that the whole procedure EU member states' courts are required to follow may not lead to a satisfactory solution.

If on the other hand these courts were given the opportunity to apply their own laws for the acts committed abroad by MNCs based in their territory, there could be some wider positive implications. Corporations based in the EU have been exerting influence through their investments throughout the world. According to the United Nations, Europe is the largest base for non-financial MNCs.[159] Moreover, a plethora of human rights protection indices suggest that most EU nations adhere to higher standards of protection in comparison to countries in the Global South,[160] a term which encompasses most low and middle income countries in Africa, Asia and

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[156] Okoli, C. S. A., & Roberts, E., 'The operation of Article 4 of Rome II Regulation in English and Irish courts' [2019] 15 *Journal of Private International Law* (3) 605, 614-615.

[157] ibid 616.

[158] ibid.

[159] United Nations Conference in Trade and Development, 100 Largest Non-Financial Transnational Corporations (UN, 31 March 2014).

[160] See for example Freedom House, 'Freedom in the World' (Freedom House, January 2020) <https://freedomhouse.org/countries/freedom-world/scores> accessed on 16 August 2020;
United Nations' Office of the High Commissioner for Human Rights, 'Universal Human Rights Index' (UN OCHR) <https://uhri.ohchr.org/> accessed on 16 August 2020.

Latin America.[161] Therefore, establishing an exception to Article 4 of the Regulation in cases where a MNC has violated a person's rights in a third country would be a step forward towards the implementation of better protection for human rights in those countries. It is widely recognised that under the current globalised market conditions, corporations have been wielding an ever-increasing amount of influence with regards to the adherence to human rights.[162] The current EU stance, as expressed through the Rome II Regulation, does not ensure a standard of scrutiny analogous to the power exerted by MNCs, therefore creating an 'accountability gap'.[163]

Conclusively, there are a lot of reasons that indicate the need for change. From a practical point of view, asking parties to plead and prove their case relying on foreign laws comes at a great expense, both in terms of time and resources. This is further intensified by the fact that courts are seldom accustomed to the foreign provisions they face during such cases. The complexity and costliness of such cases is further increased in those instances when there are multiple places where the damage has occurred. If on the contrary, national courts of member states were given a satisfactory opportunity to give effect to their own laws, none of the aforementioned phenomena would be present. From a more hypothetical standpoint, such an amendment could make national courts within the EU the global frontrunners in human rights protection against corporate activities. This would be achieved by bridging the gap between the heightened levels of power exercised by MNCs and the extent to which the Rome II Regulation allows for such organisations to be held accountable.

4. Looking to the Future: the potential form of an amendment and the concerns surrounding it

The Regulation, in its current form, provides for some exceptions to the general rule found in Article 4. These include cases of product liability (Article 5), unfair competition (Article 6), environmental damage (Article 7), intellectual property rights (Article 8), and industrial action (Article 9). All these special derogations provide that whenever one of these instances arises, the *lex*

[161] Andrea Hollington, Oliver Tappe, Tijo Salverda and Tobias Schwarz, 'Introduction: Concepts of the Global South' (Global South Studies Centre Cologne) <https://web.archive.org/web/20160904205139/http://gssc.uni-koeln.de/node/451> accessed on 16 August 2020.

[162] Philip Alston & Ryan Goodman, *International Human Rights* (OUP 2013) 1463-8; G. Chandler, 'Corporate Liability: Human Rights and Modern Business', Conference organised by JUSTICE and Sweet & Maxwell, 12 June 2006.

[163] Yilmaz Vastardis Anil and Rachel Chambers, 'Overcoming The Corporate Veil Challenge: Could Investment Law Inspire The Proposed Business And Human Rights Treaty?' (2018) 67 *International and Comparative Law Quarterly* 389, 392.

loci delicti will not be the default rule.

This contribution chooses to focus on Article 7 of the Regulation, which is concerned with environmental damages, as a good basis for a potential amendment. Article 7 provides that the default rule will apply, unless the plaintiff opts for the law of the place where the event generating the damage took place.[164] The importance of this provision lies on the fact that 'it gives the claimant a unilateral choice between two legal orders in regard to the same type of damage.'[165] Based on the 'ubiquity theory', this provision allows the plaintiff to take advantage of the higher environmental protection standards EU member states have.[166] The insertion of any provision on human rights violations by MNCs should clearly mirror Article 7 of the Regulation. Human rights, just as the protection of the environment, are among the public policy areas the EU values greatly. Therefore, offering alleged victims a higher level of flexibility can play a key role in ensuring their protection.

It is worth pointing out that the general rule is already subject to a somewhat similar exception where its application would go against the forum's public policy.[167] In recent years, strengthening transparency and accountability over the overseas activities of EU-domiciled corporations has been the gnomon of several legislative pieces.[168] These legislative initiatives could be interpreted as a reflection of what constitutes a matter of public policy. This in turn has led commentators to the conclusion that adherence to human rights protection standards may be one such public policy consideration.[169] Nonetheless, as Skinner argues, this proposal has remained only in theory, as there has not been any practical application of this approach.[170] Even if the public policy exception does find its way into courts, its application will not be a panacea for all cases of corporate violations of human rights. This is because its application is meant to be exceptional, and even then, it will still be subject to review by the ECJ.[171] In contrast a clear provision, just like

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[164] Rome II (n 137) art 7.

[165] Oxford Pro-bono Publico, *Obstacles to Justice and Redress for Victims of Corporate Human Rights Abuse – A Comparative Submission Prepared for Prof. John Ruggie, UN SG Special Representative on Business and Human Rights* (Oxford Pro-bono Publico 2008) 122.

[166] Antoni Pigrau Solé, Maria Álvarez Torné, Antonio Cardesa-Salzmann, Maria Font I Mas, Daniel Iglesias Márquez, Ordi Jaria I Manzano, *Human Rights in European Business* (Tarragona Centre for Environmental Law Studies 2016) 74.

[167] Rome II (n 137) art 7.

[168] See for example the Regulation (EU) 2017/821 of the European Parliament and of the Council of 17 May 2017 laying down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas OJ L 130 (Conflict Minerals Regulation); and the French Law on the Corporate Duty of Vigilance, No. 2017-399 of 27 March 2017.

[169] L.F.H. (Liesbeth) Enneking, 'Judicial Remedies: The Issue of Applicable Law' in Juan Jose Alvarez Rubio & Katerina Yiannibas (eds.), *Human rights in business* (Taylor & Francis 2017) 60.

[170] Gwynne Skinner, Robert McCorquodale & Olivier De Schutter, *The Third Pillar: Access to Judicia; Remedies for Human Rights Violations by Transnational Business* (The International Corporate Accountability Roundtable 2013) 17.

[171] Enneking (n 169) 60.

the one found in Article 7 for environmental damages will not face the limitations faced by the public policy exception in Article 26. Therefore, it could offer a more robust protection system against corporate violations of human rights.

Having examined the form this amendment could have; it is now necessary to scrutinise some of the concerns that may act as barriers to its materialisation. One such concern is the concept of judicial imperialism. Traditional imperialism means 'to control, manipulate and exercise dominion by one political and socio-economic order over another.'[172] This by extension signified that 'the judicial system of judges and lawyers was subservient to the colonial political control'[173] to what effectively constituted a system of judicial imperialism.

The point where this theory intersects with the proposal made in this contribution is in the extraterritorial application of EU human rights standards. If national courts of EU states were to apply their own laws for acts that took place in a third country, often involving citizens of those countries, they would be in essence imposing their own values, standards and policies on a sovereign nation. Under this perspective, national courts of the member states would displace not only the courts of the host-country, but they could also be violating that state's sovereignty.

One could argue that an amendment to the Rome II Regulation which would allow the extraterritorial application of European laws lacks both authority and meaning. On the one hand, EU member states have no authority to impose their own laws on cases taking place elsewhere. On the other hand, in the case of corporate violations of human rights in a third country, there would be no reason why those rights should be given the meaning they have in Europe. Such an outsourcing of human rights interpretation frustrates the development of independent contextualisation of those rights in a way that would satisfy the needs and understandings of the societies in the Global South.[174]

However, one must be careful before attributing any charges of judicial imperialism to the proposal in this article. To begin with, it would not be fair to argue that the proposed amendment would impose European legal standards on nations in the Global South. Such an amendment would not take over the adjudication of foreign cases in any way. It would simply make the adjudication of cases filed in national courts of the EU more efficient. As for the imposition of European values on foreign cases, this does not seem to be the case either. The only cases that would be affected by the proposal in this article are those which are concerned with the foreign

[172] Tim Murithi, Judicial Imperialism: The Politicisation of International Criminal Justice in Africa (Fanele 2019) 27.
[173] ibid 26-27.
[174] ibid 40-41.

subsidiaries of European MNCs. Therefore, it is not a situation where European standards are being forced on foreign persons, in an imperialist sense. It is rather a promise that EU-domiciled MNCs will not use those subsidiaries in any malignant manner.

Furthermore, the proposed amendment would not inhibit the development of human rights standards in the host states in any way. The cases concerning this contribution are only a fraction of all the human rights violations taking place in the Global South. According to a study conducted by Enneking between 1990 and 2015 only forty direct liability cases concerning corporate violations of human rights in third countries have been filed in EU member states' courts.[175] This does not mean that the issue analysed here is an insignificant one, since in such cases the claimants could be in the hundreds and more importantly, such cases tend to be of high legal value. It is also worth pointing out that foreign plaintiffs already have a right to file a case against an EU-domiciled MNC in its home state. This proposal does not seek to enlarge this right in any way, it just seeks to improve the way these cases are handled by member states' courts. Therefore, judicial systems in the Global South will not be deprived of any chance to adjudicate on human rights violations within their jurisdiction.

From a more normative point of view, it would be unfair to characterise the proposal contained in this article as an imperialistic manifestation. Socioeconomic studies have established that the purpose and main effect of imperialism is the extraction of wealth from developing states by developed ones, through the exploitation of cheap labour and natural resources.[176] If the Rome II Regulation was amended in accordance with this article there would be no wealth extraction. It is arguable that submitting European MNCs to higher levels of scrutiny regarding their investments in the Global South would inhibit the maximisation of profits for those companies. Consequently, one could support that since the suggestion in this article lacks imperialist motivations, its implementation would not give rise to the phenomenon of judicial imperialism.

It is also worth pointing out that this article does not seek to provide a fully articulated proposal. Instead, it simply aims to initiate a comprehensive exchange of opinions between all interested parties in order to determine the specific details of such an amendment. These include the required amount of share ownership that would qualify a third-country corporation as a subsidiary of a European one or the specific rights that would trigger the proposed rule. Such matters will have to be discussed at a more technocratic level, taking into account the representations of all interested parties, including among others, MNCs themselves, state actors,

[175] Enneking (n 169) 40-42.
[176] Zak Cope, *The Wealth of (Some) Nations* (Pluto Press 2019) 75.

academics and civil society organisations.

5. Conclusion

To conclude, the Rome II Regulation in its current form is not designed to correspond to the needs of plaintiffs seeking to hold MNCs accountable for human rights violations committed in non-EU jurisdictions. The *lex loci delicti* rule forces courts to apply legal rules they are not familiar with at a great expense. The situation is further complicated in those cases where the damage has occurred in a number of different states. Those cases require trial judges to apply the laws of all jurisdictions where a damage may have occurred which in turn costs the parties greatly, both in terms of time and money. Further to that, there is the argument that the foreign laws to be applied under Article 4 of the Regulation are not well designed for the cases this contribution deals with. On the contrary, if the Regulation allowed for the application of the laws of the EU member state where the MNC is based, there is a real potential for bringing about a global impact on human rights protection standards.

In the fourth part of this article the potential form of such an amendment was discussed, as well as the dangers of judicial imperialism. Throughout the discussion on these issues, it was exemplified that the new rule proposed here does not fall within the definition of judicial imperialism. If the Rome II Regulation is amended, EU member states will not be imposing their own laws or standards on cases that are purely domestic to third countries. Instead, they will be just making sure that there are no accountability gaps for MNCs in the present globalised market. Moreover, this paper has distinguished between the motives of true imperialism which is the exercise of political, judicial and economic control by developed states to developing ones for the purposes of extraction of wealth and resources by the former to the latter. Contrastingly, the proposed amendment does not seek to enrich European states, nor companies. Nevertheless, in those cases that do reach the courts, their cost will be indeed minimised.

Lastly, the reader must bear in mind that this article is an epitome of a much larger issue, namely, the exercise of accountability for corporate violations of human rights. Of course, this is a much wider issue that is not simply concerned with the applicable law in European states, but it also touches upon the issues of separate legal personalities for corporations, establishing jurisdictions as well as the best method to regulate corporations (hard laws, soft laws, voluntary principles/ self-regulation, etc.). It is therefore necessary to find a more holistic and universal approach to the aforementioned issue. This article has nonetheless aimed at contributing to the discussion towards the establishment of a comprehensive solution.

KILLER ROBOTS: A REVIEW OF LETHAL AUTONOMOUS WEAPONS UNDER INTERNATIONAL HUMAN RIGHTS LAW

Adrián Agenjo Aguado[177*]

Abstract

The development and deployment of autonomous lethal weapons, commonly known as 'killer robots', have transcended the realms of science fiction to become a stark reality, richly explored in audio-visual culture, literature, and scholarly discourse. This paper delves into the legal dimensions of this evolving issue, emphasising the imperative of examining killer robots within the framework of domestic and international law. The focus is on evaluating their compliance with international human rights law. To discern whether Lethal Autonomous Weapons (LAWs) should be outright prohibited or regulated under international human rights law, this study adopts a comprehensive approach encompassing five key perspectives: the right to life, human dignity, accountability, non-discrimination, and other fundamental rights. The analysis culminates in two pivotal conclusions: a lege ferenda assessment which evaluates the current alignment of LAWs with international human rights law, and a lege lata consideration, envisioning potential future harmonisation between LAWs and international human rights standards.

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1. Framing Lethal Autonomous Weapons

In this section, the realm of Lethal Autonomous Weapons (hereinafter 'LAWs'), a specialised class of weapon, is delved into, and its legal status as permitted under international law is analysed.

1.1 The Concept of Lethal Autonomous Weapons

Lethal Autonomous Weapons constitute a specific subset within the *autonomous weapon system* category. An autonomous weapon system, as defined by the International Committee of the Red Cross (hereinafter 'ICRC'), is 'any weapon system with autonomy in its critical functions – that is, a weapon system that can select (search for, detect, identify, track or select) and attack (use force against, neutralise, damage or destroy) targets without human intervention.'[178] Consequently, LAWs possess the capability to identify and engage a target with lethal force independently.

Certain LAWs have already been developed and deployed. For example, the SGR-A1, operating in the Demilitarised Zone between South and North Korea, is an intelligent surveillance and security guard robot equipped to deliver lethal or non-lethal force either with or without human decision-making.[179] Another would be the US Navy's Phalanx Close-In Weapon System which 'automatically performs search, detecting, tracking, threat evaluation, firing, and kill-assessments of targets' or the recently unveiled Lavender system used by Israel on Gaza.[180]

1.2 Are LAWs Prohibited Under International Law?

To provide an analysis through the lens of international human rights law (hereinafter 'IHRL') of a certain type of weapon, it is necessary to assess whether it is categorically prohibited under international law, as would be the case with certain chemical weapons.[181] If there is such a prohibition, it would be pointless to provide an ulterior analysis, as the prohibition is formulated in the abstract and does not derive from the specific application of an area of international law. However, LAWs are not prohibited by any international treaty or enactment, be it codified or customary.[182]

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[178] ICRC, Views of The ICRC on Autonomous Weapon Systems (Convention on Certain Conventional Weapons, 2016) 1.

[179] Hin-Yan Liu, 'Categorization and legality of autonomous and remote weapons systems' in *International Review of the Red Cross* (2012) 631.

[180] Patrick Lin, George Bekey and Keith Abney, *Autonomous Military Robotics: Risk, Ethics, and Design* (Cal Poly SLO 2008) 18; about Lavender system, see my article: Agenjo Aguado, Adrián. 'Lavender Unveiled: The Oblivion of Human Dignity in Israel's War Policy on Gaza'. *Opinio Juris*, accessible here: https://opiniojuris.org/2024/04/12/lavender-unveiled-the-oblivion-of-human-dignity-in-israels-war-policy-on-gaza/

[181] See Masahiko Asada, 'A Path to a Comprehensive Prohibition of the Use of Chemical Weapons under International Law: From the Hague to Damascus', (2016) *JCSL* VOL 21 ISSUE 2,153–207.

[182] Michael Schmitt, 'Autonomous Weapon Systems and International Humanitarian Law: A Reply to the Critics'

Indeed, the absence of a prohibition derives from a customary principle of freedom recognised by the Permanent Court of International Justice in the *Lotus* Case: *permissum videtur id omne quod non prohibitor*; in other words, what is not forbidden is considered permitted.[183] The International Court of Justice (hereinafter 'ICJ') has applied this principle to weapons law, recalling that 'state practice shows that the illegality of the use of certain weapons as such does not result from an absence of authorisation but, on the contrary, is formulated in terms of prohibition'.[184] Hence, the absence of a customary rule or treaty prohibiting the development of LAWs is tantamount to a permissive rule.

However, it cannot be inferred from the abovementioned argument that LAWs are unequivocally compliant with international law. This simply underlines that there is no express prohibition and that an alleged nonconformity with the international legal order must be proved or dismissed by a general and/or case-by-case assessment. Indeed, certain rules of international law aim to impose an evolving review of legality of means and methods of war and law enforcement.[185] As such, the purpose of this paper is to conduct a review of LAWs under IHRL.

2. Lethal Autonomous Weapons and Human Rights in Context

This section delves into the dynamic relationship between IHRL and LAWs. It explores how IHRL applies distinctively to LAWs across various scenarios, distinguishing between law enforcement contexts and situations of armed conflict. Through this lens, the nuanced implications of IHRL on the use and development of LAWs are addressed, offering a comprehensive analysis shaped by parallel specific international humanitarian law ('IHL') rules and principles.

2.1 The Applicability of HRL to LAWs

In international law, the body of rules governing the legality of weapons is commonly referred to as weapons law.[186] This corpus is mainly conformed by international humanitarian law (hereinafter 'IHL'), although IHRL also places stringent direct and indirect restrictions on the use

(2013) HNSJF 2013, 35; Advisory council on International affairs (AIV) Advisory committee on issues of public international law (CAVV), A*utonomous Weapon Systems: The Need for Meaningful Human Control,* No. 97 AIV / No. 26 CAVV, (October 2015), 21-22.

[183] *The case of the S.S. 'Lotus' (France vs Turkey)* (Judgement) Series A. No 10, Permanent Court of International Justice (7th September 1927), para 18.

[184] *Legality of the Threat or Use of Nuclear Weapons (Legality of Nuclear Weapons)* (Advisory Opinion) [1996] ICJ Rep 226 para 52.

[185] See Rupert Ticehurst, 'The Martens Clause and the LAWs of Armed Conflict' (1997) No. 317 International Review of the Red Cross <www.icrc.org/en/doc/resources/documents/article/other/57jnhy.htm> accessed 17 August 2020

[186] See William H. Boothby, *Weapons and The Law of Armed Conflict* (2nd edn, OUP 2009).

of force, firearms, and other weapons, as expressly articulated in numerous international instruments.

The connection between IHRL and weaponry can be extracted from IHL rules. For instance, Article 36 of Additional Protocol I to the Geneva Conventions[187] mandates that all States shall review new weapons 'to determine whether its employment would, in some or all circumstances, be prohibited by this Protocol or by any other rule of international law applicable to the High Contracting Party.' IHRL falls within the ambit of 'any other rule of international law.'

Another manifestation of IHRL's influence on the legality of weaponry is evident in the Martens Clause, which stipulates that 'in cases not covered by the law in force, the human person remains under the protection of the principles of humanity and the dictates of the public conscience.'[188] In line with this, it is entirely plausible to argue that human rights principles shape the notions of humanity and public conscience in contemporary times.

Regardless, new weapons must undergo scrutiny under international law in its entirety, encompassing various legal frameworks. While weapons prohibited under IHL are generally also proscribed under IHRL,[189] this paper will specifically address the IHRL implications of LAWs independently.

2.2 Situations where HRL may potentially apply to LAWs

The application of IHRL to LAWs can vary depending on specific circumstances. Although IHRL possesses a universal character, its relevance is contingent upon contextual factors. Therefore, distinctions must be made concerning the scenarios where IHRL might intersect with LAWs.

2.2.1 Law Enforcement

Law enforcement includes both standard domestic policing as well as extraterritorial operations, such as certain counterterrorism strategies, that do not meet the criteria for armed conflict.[190] Ordinary law enforcement, in addition to domestic law, is governed by IHRL. LAWs could potentially serve diverse functions in law enforcement scenarios, ranging from providing perimeter security around specific installations like high-security prisons or border areas (where

[187] Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts, 8 June 1977, 1125 UNTS 3, (API), Art. 36.
[188] UN International Law Commission (ILC) Work of its Forty-sixth Session GAOR A/49/10 (1994) 317.
[189] See Blaise Cathcart, *Legal Dimensions of Special Forces and Information Operations,* in Terry D. Gill and Dieter Fleck (eds) The Handbook of The International Law *o*f Military Operations (OUP 2010) 400.
[190] Christof Heyns, 'Human Rights and the use of Autonomous Weapons Systems (AWS) During Domestic Law Enforcement' (2016) *HRQ* 38 JHUP 353.

stationary systems equipped with tear gas dispensers may be deployed) to crowd control or the apprehension of specific offenders.[191]

2.2.2 Armed Conflict

'An armed conflict exists whenever there is a resort to armed force between States or protracted armed violence between governmental authorities and organised armed groups or between such groups within a State', according to the definition established in the *Tadić* case.[192] Whenever an armed conflict arises, be it internal or international, IHL applies.[193] In this sense, IHL is applicable as both treaty law and customary law,[194] and it binds both States and non-state actors that participate in armed conflicts, as stated by the resolutions of the Security Council,[195] scholars,[196] the Common Article 3 of the Geneva Conventions,[197] and the Additional Protocol II.[198] At this point, the interrelation between IHRL and IHL should be analysed in order to ascertain the applicability of IHRL during times of armed conflict, including its relevance to the use of LAWs in such contexts.

The ICJ has clearly stated that the protection of the International Covenant on Civil and Political Rights (hereinafter 'ICCPR') does not cease in times of war.[199] Of a similar view is the European Commission of Human Rights, which declared that States engaging in military operations are bound to respect not only the IHL rules but also fundamental human rights.[200] Moreover, the Inter-American Commission on Human Rights has emphasised that IHRL and IHL converge and reinforce each other during armed conflict, as illustrated in the case of la *Tablada*[201].

According to Droege, head of the legal division of the ICRC, contends that IHRL 'deals with the

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[191] ibid 360.

[192] *Tadić, Decision on the defence motion for interlocutory appeal on jurisdiction (IT-94-1)*, International Criminal Tribunal for the Former Yugoslavia, (2 October 1995) para 70.

[193] ibid, paras 67 & 70; The Geneva Conventions of 12 August 1949, (12 August 1949), 75 UNTS 287, (GENCONV), art 2; API (n 188), Art. 1; 'How is the Term "Armed Conflict" Defined in International Humanitarian Law?' (ICRC) Opinion Paper, (March 2008), 5.

[194] *Legality of Nuclear Weapons* (n 7) para 82; Malcolm Shaw, *International Law,* (8th edition, Cambridge University Press 2017) 891; *Military and Paramilitary Activities in and against Nicaragua* (Judgment - Jurisdiction) [1984] ICJ Rep 392, para 59.

[195] Security Council Resolution 794(1992) (3 December 1992). UN Doc S/RES/794, para 4; Security Council Resolution 972(1995) (13 January 1995) UN DOC S/RES/972, para7; Security Council Resolution 1993(1998) (13 May 1998) UN Doc S/RES/1166, para 12.

[196] Waseem Ahmad Qureshi, 'Applicability of International Humanitarian Law to Non-State Actors', 17 Santa Clara J. Int'l L. 1 (2019) 22.

[197] GENCONV (n 193) art. 3; *Military and Paramilitary Activities in and against Nicaragua* (Judgement-Merits) [1986] International Court of Justice (ICJ) Rep 14 para 218.

[198] Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts, (adopted 7 June 1977, entered into force 7 December 1978) (APII), Art. 1.

[199] *Legality of Nuclear Weapons* (n 184) para 25.

[200] *Cyprus v. Turkey* App nos. 6780/74 and 6950/75 (Commission Decision, 10 July 1976) paras 509-510.

[201] *Juan Carlos Abella v. Argentina* Report No. 55, Case 11.135 and OEA/Ser.L/V/II.95 paras 153 and 160-161.

inherent rights of the person to be protected at all times against abusive power'.[202] Following this reasoning, the synergic relationship between both bodies of law characterised by IHL acting as a *lex specialis* of IHRL[203] respect the principle established in the Vienna Convention on the Law of the Treaties that specific legal rules prevail over general ones in cases of inconsistency.[204] This principle implies that in situations where IHL allows a more permissive threshold for the use of force compared to IHRL, the prevailing standard will be that established by IHL.[205] For instance, the ICJ has considered that the test of what constitutes an arbitrary deprivation of life is to be determined by IHL in situations of armed conflict. [206] The African Commission on Human and Peoples' Rights shares a similar perspective.[207]

In conclusion, while IHRL is applicable in armed conflict, the analysis of the IHRL compliance of LAWs used in domestic law enforcement may differ when placed in the context of ongoing hostilities. To comprehensively assess the IHRL implications of LAWs, it will be necessary to reference specific IHL rules, principles, and concepts to provide a holistic approach applicable to both law enforcement and armed conflict situations.

3. Human Rights at Stake

Now, the analysis will engage with the intersection of specific human rights and LAWs. The fundamental right to life and its implications for LAWs, focusing on principles of necessity and proportionality, are examined. Subsequently, the profound ethical and legal questions surrounding the right to human dignity when LAWs are deployed are addressed, followed by a critical examination of accountability frameworks in the context of human rights violations involving these autonomous systems, to then examine the relevance of equality and other rights in this framework.

3.1 The right to life

[202] Cordula Droege, '*The Interplay Between International Humanitarian Law and International Human Rights Law in Situations of Armed Conflict*' (2007) 40 *Israel Law Review* 310.
[203] *Legality of Nuclear Weapons* (n 184) para 25.
[204] Vienna Convention on the Law of Treaties (adopted 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331 Art. 32.
[205] It is usual that IHL will set more permissive rules than IHRL due to the situations in which they operate. Although it might be a simplification, some scholars illustrate this difference highlighting "the different starting point of the two bodies of law: for human rights, it is the right to life; for humanitarian law, the right to kill". See Sandesh Sivakumaran, 'International Humanitarian Law' in Daniel Moeckli, Sangeeta Shah and Sandesh Sivakumaran (eds) *International Human Rights Law* (OUP 2013) 535.
[206] *Legality of Nuclear Weapons* (n 184) para 25; *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory* (Advisory Opinion) [2004] ICJ Rep 136 para 106.
[207] African Commission on Human and Peoples' Rights. General Comment. No. 3: The Right to Life of the African Charter on Human and Peoples' Rights (18 November 2015) para B.12.

According to the ICCPR, every individual possesses an inherent right to life, which must be safeguarded by law, and no one shall be arbitrarily deprived of this right.[208] This right is of a *jus cogens* nature[209] and encompasses two main elements: preventing the arbitrary loss of life and ensuring accountability when such loss occurs. The latter component will be addressed in a separate section. The prevention of arbitrary deprivations of life is grounded in two fundamental principles: necessity and proportionality.

3.1.1 The principle of distinction

The principle of necessity dictates that force, whether lethal or non-lethal, should only be used against an individual who presents an imminent threat of violence.[210] Assessing such threats typically requires discerning an individual's intent, a determination that algorithms are unlikely to make with sufficient certainty to justify the use of force.[211] Scholars like Sassoli argue that in most cases even humans will never know the intention of another human being, whereas LAWs 'will be receptive only to objective indications of the danger a person represents.'[212] A main critical issue arises here: machines must make decisions that inherently require human traits, such as evaluating emotions, despite lacking such characteristics themselves.

As derived from the necessity principle, using weapons incapable of distinguishing between law-abiding citizens and insurgent ones is a flagrant violation of IHRL (and of IHL in times of armed conflict).[213] According to doctrine, deploying LAWs would contravene this principle, except in very unique scenarios where the presence of law-abiding citizens is non-existent.[214] Furthermore, since individuals violating the law are typically indistinguishable by physical markers or insignias, LAWs must identify those directly engaged in hostilities or the concrete wrongful conduct.[215] Making this distinction goes beyond what an algorithm can perceive[216] or assess.[217] An

[208] International Covenant on Civil and Political Rights (ICCPR) (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR), art. 6.
[209] General Assembly, Peremptory norms of general international law (jus cogens), (9 August 2019) UN Doc A/CN.4/L,1,2.
[210] See UNHRC Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions 25th Sess. (1 April 2014) UN Doc HRC/26/36 145.
[211] Human Rights Watch (HRC), 'Losing Humanity: The Case against Killer Robots' HRC (2012), 4.
[212] Marco Sassoli, 'Autonomous Weapons and International Humanitarian Law: Advantages, Open Technical Questions and Legal Issues to Be Clarified', 90 INT'L L. STUD (2014) 308.
[213] United Nations Security Council (UNSC), Res 1674 (28 April 2006) UN Doc S/RES/1674, para 3.
[214] Boothby (n 186) 249; UNHRC, 'Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions' (9 April 2013) UN Doc A/HRC/23/47, paras 113 & 114.
[215] Nils Melzer, 'Interpretive Guidance on the Notion of Direct Participation in Hostilities under International Humanitarian Law' (ICRC May 2009), 41-68.
[216] HRC (n 211), 30-31.
[217] Noel Sharkey, 'Killing Made Easy' in Patrick Lin et al., 'Robot Ethics: the Ethical and Social Implications of Robotics' (MIT Press 2012) [Lin] 118.

example would be the attribution of intention (e.g. the willingness to physically attack and damage someone),[218] which necessarily contains an emotional and humane component.[219] Even if a LAW could theoretically comply with this principle, it lacks predictability and may experience malfunctions, [220] potentially resulting in indiscriminate attacks.[221] This risk is compounded in cases where LAWs learn from their "experiences" and engage in probabilistic reasoning without human intervention.[222]

Importantly, the Human Rights Committee has stated that the prohibition against arbitrary deprivation of life is breached by the mere existence of foreseeable threats and life-threatening situations,[223] even if these threats do not culminate in loss of life.[224] Hence, the presence of a LAW with a significant risk of false positives – meaning a high likelihood of lethally targeting a non-threatening civilian – would violate this provision simply by its existence, regardless of whether it actually deploys lethal force.

In summary, the concept of arbitrariness encompasses aspects of inappropriateness, injustice, unpredictability, and absence of due process of law,[225] all of which may manifest in the targeting practices of LAWs.

3.1.2 The principle of proportionality

The principle of strict proportionality under IHRL dictates that the harm inflicted must not outweigh the interest being protected.[226] For instance, in the context of law enforcement, it is unacceptable to use lethal force against a non-immediately threatening thief, even if this results in the thief escaping, since the protection of property does not justify the intentional taking of life.[227] Such cases spark complex debates within criminal law, particularly in self-defence and policing, where subjective evaluation and *mens rea* elements are crucial. Additionally, the element of proportionality requires law enforcement agents to employ the least harmful level of force required to neutralise a specific threat posed by an individual, a logic that adds further complexity to decision-making for machines.

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[218] Marcello Guarini and Paul Bello, 'Robotic Warfare: Some Challenges in Moving from Noncivilian to Civilian Theaters' in Lin, 131.
[219] ibid, 138.
[220] Benjamin Kastan, 'Autonomous Weapons Systems: A Coming Legal Singularity?' JLTP (2012), 8.
[221] UN Doc A/HRC/23/47 (n 37), para 98.
[222] ICRC, Report of the ICRC Expert Meeting on 'Autonomous Weapon Systems', (2014) 4,8,9.
[223] UNHRC, 'General Comment No.36: Art.6: Right to Life' (30 October 2018) UN Doc CCPR/C/GC/36, para 7.
[224] ibid.
[225] UN Doc CCPR/C/GC/36 (n 223), para 12.
[226] Heyns (n 190), 364.
[227] ibid.

Concerning the use of lethal force, its deployment for law enforcement purposes is an extreme measure[228] and should be resorted to only when strictly necessary to protect life, as emphasised in key international standards such as the United Nations Code of Conduct for Law Enforcement Officials[229] and the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials.[230] Consequently, any programmed algorithm governing a LAW must adhere to this rule, which sets an additional bar for decision-making.

Additionally, the principle of distinction applies both in law enforcement (under IHRL, requiring differentiation between law-abiding and non-law-abiding individuals) and in armed conflict (requiring differentiation between civilians and combatants), albeit with distinct implications in each context. In armed conflicts situations, violations of IHL resulting in death are considered arbitrary deprivations of life,[231] and are therefore of interest for this study.

When evaluating whether a military operation adheres to the principle of proportionality in IHL, the case-law has adopted the "reasonable military commander" standard.[232] This criterion establishes that an attack is deemed proportional if a reasonably well-informed person, in the circumstances of the perpetrator utilising available information reasonably, could anticipate that excessive civilian casualties would not result from the attack.[233]

Certain scholars contend that, in complex and dynamic military encounters, a LAW is unlikely to satisfy this prerequisite,[234] as it cannot be reduced to the logic of an algorithm.[235] This is because the principle of proportionality is highly abstract and context-specific, reliant on subjective evaluations[236] which must be addressed on a case-by-case basis[237] considering common sense and good faith.[238] In sum, the risk of a LAW violating the principle of proportionality in IHL—and thereby resulting in arbitrary deprivation of life—is considerable. Likewise, the risk of contravening IHRL in routine law enforcement situations is even more pronounced, given the

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[228] UN Doc CCPR/C/GC/36 (n 223), para 12.
[229] UNGA, 'Code of Conduct for Law Enforcement Officials' Res 34/169 (17 December 1979) UN Doc A/RES/34/169, art. 3(c).
[230] 8th UN Congress on the Prevention of Crime and the Treatment of Offenders, 'Basic Principles on the Use of Force and Firearms by Law Enforcement Officials' (1990), para 9.
[231] African Commission on Human and Peoples' Rights. General Comment. No.3: The Right to Life of the African Charter on Human and Peoples' Rights (18 November 2015), para B.12.
[232] Jean-Marie Henckaerts and Louise Doswald-Beck, 'Customary International Humanitarian Law: Practice, Volume II, Part 1' (CUP 2005), 331-333.
[233] *Prosecutor v. Stanislav Gali* (Judgement and opinion) No. IT-98-29-T (ICTY, December 5 2003, para 58.
[234] Noel Sharkey, 'Automated Killers and the Computing Profession' IEEE Computer (2007), 122.
[235] Jeffrey Thurnher, 'No One at Controls: Legal Implications of Fully Autonomous Targeting' JFP(2012), 81-83.
[236] Peter Asaro, 'Modeling the Moral User' IEEE TSM (2009), 21.
[237] Patrick Lin et al, 'Robots in War: Issues of Risk and Ethics' in Raphael Capurro and Michael Nagenborg, 'Ethics and Robotics'(AKA Verlag Heidelberg 2009), 49-66.
[238] ICRC, 'Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949' (KAP 1987), 679 & 682.

predominantly subjective and human-centric nature of the criteria needed to determine appropriate use of force in each instance.

3.1.3 Conclusion

Certain academics and human rights organisations argue that machines or algorithms lack the essential characteristics necessary to make decisions in accordance with the principles essential for compliance with the human right to life. However, it is crucial to note that these arguments do not challenge the fundamental nature or operational functionality of LAWs. Instead, they emphasise the inherent absence of morality and emotions in machines, which should preclude them from making decisions in the contexts of law enforcement or armed conflict in our contemporary era. Thus, deploying a LAW would be akin to entrusting decision-making to an entity incapable of exercising appropriate judgement. However, if such an entity were to develop the capability to make decisions adequately, it could then be deemed suitable for assuming that role.

Applying this reasoning to machines, if a LAW were to acquire the ability to perceive intent, assess emotion, or incorporate a comprehensive algorithmic system that allows for deploying lethal force with a negligible or minimal risk of violating the human right to life, its use could be deemed acceptable. In other words, if technological advancements overcome the current barriers hindering LAWs from complying with the human right to life—a possibility given the rapid progress in cutting-edge technologies - these arguments would no longer hold weight. They are contingent on circumstantial arguments, dependent on the circumstances characterising present technology, and would lose their validity if those circumstances were to change.

These contentions revolve around the capacity of LAWs to align with IHRL. However, arguments concerning whether these weapons *should* be used at all cannot be overlooked,[239] even if they were to demonstrate capability. Thus, there is a deeper question about whether machines should possess such decision-making authority: is it not inherently arbitrary for a machine to wield the power to make life-and-death decisions over human beings? This question demands consideration through the lens of the right to human dignity.

3.2 The right to human dignity

The preamble of the Charter of the United Nations expresses 'faith in fundamental human rights

[239] The same consideration and classification of arguments is made by Amanda Sharkey, 'Autonomous weapons systems, killer robots and human dignity' (2019) EIT, 2.

and in the dignity and worth of the human person.'[240] Article 1 of the Universal Declaration of Human Rights asserts that 'all human beings are born free and equal in dignity and rights.'[241] The ICCPR refers to dignity as the foundation of the rights it encompasses.[242] Although it does not enumerate it as an independent substantive right, it is intertwined with other prerogatives.[243] Additionally, the protection of human dignity is a common aim of IHRL and IHL, and this commonality underlies their complementarity.[244] Human dignity has also been recognised as a fundamental right in domestic jurisdictions and case-law.[245]

The critical question to address is whether LAWs, when they employ lethal force against a human being, inherently violate the right to human dignity. Before delving into this problem, it is essential to acknowledge that the concept of human dignity has various religious and philosophical interpretations, but at its core, it signifies the notion of the infinite or immeasurable value inherent in each person.[246]

Asaro responds affirmatively to the question and asserts that a machine, bloodless and without morality or mortality, lacks the capacity to grasp the significance of using force against a human being and cannot fully comprehend the gravity of such decisions.[247] LAWs are situated in a position where they cannot appeal to the humanity of the individual targeted. However, while this argument may evoke strong emotional reactions, it lacks robust legal reasoning and heavily relies on the interpretation of human dignity adopted.

Other scholars have answered in the same direction using different arguments. Heyns, for example, declares that a person targeted by a LAW is reduced to being 'an object that has to be destroyed.'[248] Of the same view are Johnson and Axinn.[249] It is challenging to argue against the notion that individuals subjected to surveillance and evaluation by a LAW may be viewed as nuisances or objects to be eliminated, rather than beings with inherent dignity. Once a person

[240] Charter of the United Nations, 24 October 1945, UN Doc 1 UNTS XVI Preamble.
[241] Universal Declaration of Human Rights (UDHR), UNGA Res 217 Art. 1.
[242] See ICCPR (n 208) Preamble.
[243] See 'Charles R. Beitz, Human Dignity in the Theory of Human Rights: Nothing but a Phrase?' (2003) 1 PHIL & PuB AFF 25.
[244] Cordula Droege, 'The Interplay Between International Humanitarian Law and International Human Rights Law in Situations of Armed Conflict', (2007) 40 ISR. L. REV, 310 (2007).
[245] For example, Article 1 of the Basic Law of Germany (1949) states 'Human dignity is inviolable. To respect and protect it is the duty of all state authority'; also see Paolo G. Carozza, 'Human Dignity and Judicial Interpretation of Human Rights: A Reply', (2008) 19 EUR. J. INT'L L, 931.
[246] Bernhard Schlink, 'The Concept of Human Dignity: Current Usages, Future Discourses', in Christopher McCrudden (ed) *Understanding Human Dignity* (OUP 2013) 632.
[247] Peter Asaro, 'On Banning Autonomous Weapon Systems: Human Rights, Automation and the Dehumanisation of Lethal Decision-Making' (2012) 94 INT'L REV RED CROS 94(886), 693-704.
[248] Christof Heyns (2017). 'Autonomous weapons in armed conflict and the right to a dignified life: An African perspective.' (2017) SAF HR 46–71.
[249] Aaron Johnson and Sidney, 'The morality of autonomous robots', (2013) JMT 12(2), 129–141.

enters the computational system of a LAW, they are transformed into bits and data. This inherently undermines the Kantian concept of human dignity, which asserts that humans must never be treated as mere objects or means under any circumstance - a principle that is nearly universally acknowledged.[250]

Closely tied to this argument is another concern regarding the absence of human judgement. Decisions made by LAWs are abstract, based on predetermined algorithms, lacking individualised consideration. The nuanced considerations of time and hope, which should factor into such decisions, are disregarded. One of the inherent issues with computer algorithms governing when LAWs deploy lethal force is that they operate in a preemptive manner, following pre-set rules, without a genuine and urgent emergency necessitating such profound decisions. While extensive measures may be permissible in a true emergency, making such decisions in abstract scenarios is not justified. In this regard, sentences like life imprisonment without parole have been deemed to violate the right to human dignity because they essentially 'write off' the individual, making decisions on a purely abstract basis and eliminating any room for hope or change.[251]

The possibility of a deliberative process somewhere down the line, where a change of mind and fate is possible, is ruled out in advance by the introduction of LAWs, as human control is completely sacrificed in the process. In this sense, Asaro contends that law, in general, requires human judgement: justice requires a human duty to 'consider the evidence, deliberate alternative interpretations and reach an informed opinion'. [252] The framework of law and the processes of justice necessitate the presence of humans as legal agents, and the absence of human judgement within LAWs inherently violates the right to human dignity.[253]

These arguments represent widely accepted views within legal doctrine. Nonetheless, authors such as Saxton[254] or Birnbacher[255] have critiqued these claims, emphasising the complexity of the concept of human dignity, even though they agree that LAWs are non-compliant with the right to human dignity for other reasons.

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[250] David Hollenbach, 'Human Dignity: Experience and History, Practical Reason and Faith' in McCrudden (n 246); Bernhard Schlink, 'The Concept of Human Dignity: Current Usages, Future Discourses' in McCrudden (n 246).
[251] See Bernhard Schlink, 'The Concept of Human Dignity: Current Usages, Future Discourses,' in McCrudden (n 246) 634.
[252] Asaro (n 247) 693-704.
[253] ibid.
[254] Adam Saxton '(Un)dignified killer robots? The problem with the human dignity argument.' (Lawfare Blog, 20 March 2016) <www.lawfareblog.com/undignified-killer-robots-problem-human-dignity-argument> accessed 15 August 2020.
[255] Dieter Birnbacher, 'Are autonomous weapon systems a threat to human dignity?' in Nehal Bhuta et al. (eds), *Autonomous weapons systems: Law, ethics, policy* (CUP 2016), 105-121.

3.3 Accountability

The ICCPR provides that state parties must 'ensure that any person whose right or freedoms […] are violated shall have an effective remedy.'[256] This requirement is closely linked to the notion of accountability, as full redress cannot be achieved if the responsible agent for a human rights violation cannot be identified or held accountable. Some scholars share the view that it would be uncertain who could be held accountable for a violation of IHRL committed by a LAW.[257]

However, a comprehensive accountability approach could address this issue. As Schmitt contends, 'the commander who decides to launch the LAW into a particular environment is, as with any other weapon systems, accountable under international criminal law for that decision. Nor will developers escape accountability if they design systems, autonomous or not, meant to conduct operations that are not IHL compliant. And states can be held accountable under the laws of state responsibility, should their armed forces use LAWs in an unlawful manner'.[258] In fact, government officials authorising the deployment of unlawful LAWs could potentially face accountability.[259] In conclusion, the existing accountability framework applicable to other weapon systems would similarly apply to LAWs.[260]

3.4 The right to equal treatment and discrimination

The right to equal treatment is recognised in the Universal Declaration of Human Rights[261] and in Article 26 of the ICCPR. Furthermore, specific legal instruments have been established on the issue of discrimination, such as the International Convention on the Elimination of All Forms of Racial Discrimination of 1965.

In this matter, algorithm-based decision making is often perceived as objective and impartial. However, creating unbiased algorithms is a complex task. Programmers might inadvertently, or sometimes deliberately, embed elements of misinformation, racism, bias, and prejudice in these algorithms, which disproportionately penalise disadvantaged and marginalised groups.[262] Potential

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[256] ICCPR (n 208) art 2 (3).

[257] Perri Six, 'Ethics, Regulation and the new Artificial Intelligence, Part II: Autonomy and Liability', (2001) 4 IOMM. & Soc'Y, 406; Kenneth Einar, 'Artificial Agency, Consciousness, and the Criteria for Moral Agency: What Properties Must an Artificial Agent Have to be a Moral Agent?' (2007) 7th ICEC; Robert Sparrow, 'Killer Robots' (2007) 24 J. APPLIED PHIL.

[258] Michael Schmitt, '*Regulating Autonomous Weapons Might be Smarter Than Banning Them',* (Just Security, 10 August 2015) <https://www.justsecurity.org/25333/regulatingautonomous- weapons-smarter-banning/> accessed 17 August 2020.

[259] AIV, CAVV (n 182) 28-3, Schimit (n 182) 33.

[260] AIV, CAVV (n 182) 27.

[261] Universal Declaration of Human Rights (UDHR), United Nations General Assembly (UNGA) Res 217 Art. 1, 2, 7.

[262] Cathy O'Neil, 'Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy' (2017) NY BB, 3.

discrimination is exacerbated by the opacity of the programs, many of which are privately owned, and a social tendency to assume that machine-made decisions are more likely to be objective.

While considerable scholarly and policy-oriented efforts have been directed towards devising solutions for crafting fair algorithms, robust international standards for auditing, accountability, or transparency are still lacking.[263] Digital systems not only often operate in discriminatory ways but also disproportionately impact vulnerable and marginalised communities when they do act.[264] Moreover, scholars such as Ulgen[265] or Birnbacher[266] have pointed out that LAWs can reduce the equality between persons, as their application is typically asymmetrical, often targeting individuals from only "one side" in both armed conflict and law enforcement scenarios.

3.4 Other rights

The deployment of LAWs can have varying impacts on human rights depending on their specific usage. For example, when LAWs are deployed as a deterrent barrier, such as the SGR-A1 system in the Demilitarised Zone between South and North Korea, they may unjustifiably limit the right to freedom of movement as recognised under Article 12 of the ICCPR. Such restrictions could potentially impede the enjoyment of other rights.

The ICJ has previously determined that the construction of a physical barrier can infringe upon the freedom of movement and hinder the exercise of rights to work, health, education, and an adequate standard of living as stipulated in the ICCPR and the United Nations Convention on the Rights of the Child.[267] Although a barrier formed by a series of LAWs might not physically block movement, its presence can still act as a deterrent, thereby restricting movement.[268]

It is important to note, however, that these potential impacts on rights are contingent on the specific and situational deployment of LAWs rather than their inherent nature. This includes the geographical or spatial configuration in which they are implemented, which does not necessarily pertain to the fundamental human rights implications of LAWs themselves.

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[263] Bruno Lepri et. al., 'Fair, Transparent, And Accountable Algorithmic Decision-making Processes: The Premise, the Proposed Solutions, and the Open Challenges' (2017) Philosophy & Technology; Nicholas Diakopoulos & Sorelle Friedler, 'How to Hold Algorithms Accountable' (2016) MIT Technology Review.

[264] Jonathon W. Penney 'Internet Surveillance, Regulation and Chilling Effects Online: a Comparative Case Study' (2017) VOL 6 JIR.

[265] Ozlem Ulgen, 'Human dignity in an age of autonomous weapons: Are we in danger of losing an 'elementary consideration of humanity'?' (2016) *8*(9)*ESIL CPS 1–19*.

[266] Birnbacher (n 255) 105-121.

[267] *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory* (Advisory Opinion) [2004] ICJ Rep 136 para 133.

[268] Birnbacher (n 255) 105-121.

4. Conclusion

After considering how LAWs may (or may not) align with IHRL, two main conclusions are drawn: one from a lege lata perspective and one from a lege ferenda approach.

4.1 *Lege lata* position

Upon assessing the human rights implications of LAWs a crucial question arises: are LAWs compatible with existing IHRL? Initially, scepticism abounds regarding the ability of current technology to fully adhere to the obligations and principles emanating from the right to life. The more robust and evidence-backed arguments within this discourse suggest that LAWs are inherently incapable of conforming to IHRL, necessitating their prohibition. However, a significant caveat to these claims is their reliance on the present limitations of technology, which are potentially rectifiable given the evolutionary nature of technological advancements, thereby undermining the durability of these arguments. As such, these arguments are circumstantial or contingent.

This discussion leads to a further inquiry: absent these technological constraints, do other IHRL considerations justify a ban on LAWs? Here, the principle of human dignity enters the debate. Despite the broad discourse and lack of consensus on the concept of dignity, a predominant portion of scholarly opinion, through diverse interpretative lenses – some critical of others – asserts that LAWs contravene human dignity. This argument, grounded not in the transient features of technology but in the inherent function of LAWs, machines making life-or-death decisions, presents a timeless rationale for their unequivocal prohibition.

Conversely, arguments pertaining to accountability and discrimination appear less compelling for advocating a ban. The issue of accountability, while significant, is seen as surmountable within existing frameworks of international criminal law and state responsibility. As for discrimination, this challenge is viewed as addressable through the formulation and implementation of international standards for unbiased algorithmic design. Furthermore, certain rights-related concerns highlighted in opposition to LAWs reflect situational misuse rather than intrinsic flaws, suggesting that these issues should not form the basis for a wholesale prohibition but rather be addressed as specific cases of improper deployment.

In summary, the arguments anchored in the rights to life and human dignity provide substantial grounds for proscribing LAWs under IHRL. In contrast, concerns regarding accountability, discrimination, and other rights do not furnish a similarly robust basis for such a prohibition.

4.2 *Lege ferenda* position

While the current existing forms of LAWs may not align with IHRL, this does not preclude the potential for their modification to meet these standards. LAWs, far from being intrinsically malevolent creations, offer significant advantages such as minimising human casualties[269] in military or law enforcement scenarios and allowing more time for target identification before force is deployed. [270]

To reconcile the use of LAWs with IHRL, many scholars advocate for the integration of 'meaningful human control' into these systems. This concept, though subject to extensive debate, generally suggests modifying LAWs to ensure that ultimate decision-making authority rests with humans,[271] thereby maintaining a critical human element in their operation (eradicating 'full autonomy' of LAWs).[272] One interpretation of the term suggests a scenario where LAWs function as tools to fulfil law enforcement or military objectives, with ultimate decision-making authority retained by humans.[273]

Indeed, in some fields, technology has outpaced humanity, yet always under human oversight. It is undeniable that one cannot undo the existence of algorithms, deep learning, image recognition, supercomputers, or even autonomous weapons to the extent that they operate autonomously. Nor can one deny their potential utility. Thus, it may be wiser to consider how these technologies can be employed in a manner that upholds human dignity and rights, rather than vilifying them based on various theories that support an outright prohibition. As one navigates the currents of innovation, only time will chart the course between human values and technological advancements.

[269] Gary Marchant et al., 'International Governance of Autonomous Military Robots,' (2012) 12 COLUM. SCI. & TECH. L. R, 288; Robert Sparrow (n 257) 64.
[270] Ronald C. Arkin, '*The Case for Ethical Autonomy in Unmanned Systems', (2010)* 9 J. *MIL*. ETHICS 32, 333 (2010.
[271] 'Autonomous weapons, meaningful human control and the CCW' (Article 36 A Critical Voice on Weapons, 21 May 2014)
<http://www.article36.org/weapons-review/autonomous-weapons-meaningful-hurnancontrol-and-the-ccw/> accessed 21 August 2020.
[272] HRC (n 211) 7, 20.
[273] Heyns (n 190) 357.

INDIGENOUS PEOPLES IN LATIN AMERICA UNDER THE THREAT OF GENOCIDE? THE INFRINGEMENT OF THEIR FUNDAMENTAL RIGHTS BY POLITICAL ACTORS

Evangelia Mavropoulou[274]

Abstract

This essay argues the extent of the implementation of indigenous' rights in Latin America. More specifically, it explores the foundations on which locals' rights have been created and focuses on the indigenous societies and legal cases of Brazil. It is a fact that during the last decade, the political groups in Latin America have given great importance to economic growth by introducing policies and enforcing laws which violate the traditional rights of the indigenous societies. Despite the great initiative of the UN and the ILO to develop a set of minimum standards which would lay the foundations for the protection of indigenous peoples, they continue to face inequality and exploitation from the political parties of each country. This can be proven from the decisions and orders of the IACHR, which has dealt with numerous violations of indigenous' rights, especially concerning territorial ones and their access to natural resources. To make matters worse, the local groups in Brazil face impediments to their access to decision making and healthcare, the last one being very important nowadays with the outbreak of the pandemic. Lastly, the current alterations which have been introduced in Brazil concerning the environmental policies, constitute a menace not only to the Amazon rainforest and its conservation but also to the indigenous habitants, who deal with usurpation of their land, illegal deforestation and heavy infrastructure development.

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1. Introduction

Latin American societies have been characterised as multicultural, constituting an environment of different cultures, traditions and races. The indigenous peoples have traditionally occupied the land on which they live and the natural resources on which they depend. Although their presence in the countries of Latin America has been long, the official establishment of indigenous' rights became an international priority not before the beginning of the twentieth century. The universal interest for the protection of indigenous societies was instilled due to the recognition of indigenous rights as human rights and most importantly thanks to ILO's international convention 107 and 169, which dealt for the first time with indigenous societies. [275] Finally, on the 13th of September 2007, the United Nations drafted the declaration on the rights of indigenous peoples (UNDRIP) and not long after its publication, a number of Latin American countries introduced constitutional amendments, in order to secure indigenous rights and simultaneously to recognize the multi-ethnic nature of those areas.

2. Coding indigenous peoples' freedoms at international and national level

2.1 International Labour Organization Conventions

After World War II ended, a holistic reformation of the world took place and members of international organizations emphasized on altering labour standards and safeguarding human rights. As a result, the International Labour Organization took the initiative to create the first framework for the protection of tribal peoples' rights from governmental oppression and exclusion. After several years of dialogue, the International labour organization adopted in 1957 the Indigenous and Tribal Populations Convention (No.107).[276] The aforementioned- pioneering document addressed a number of issues referring to indigenous peoples, such as their territorial rights, vocational, employment and economic growth as well as healthcare and traditions. Although the convention was ratified by many countries, it was not considered enough to impede the states' discrimination on the indigenous cultures. Therefore, it was deemed necessary that the member states which had already ratified the convention, revise the document. Consequently, in 1989 the convention was renamed to Indigenous and Tribal peoples Convention,1989 (No.169) and so far, 24 countries have ratified it. Additionally, the International Labour Organization has developed supervisory mechanisms in order to reassure that each country complies with the

[275] Rachel Sieder (ed), Multiculturalism in Latin America: Indigenous rights, Diversity and Democracy (Palgrave Macmillan, 2002) 1,33.

[276] Eric Hanson, 'ILO Convention 107' (2009), the University of British Columbia <https://indigenousfoundations.arts.ubc.ca/ilo_convention_107/ >accessed 8 August 2020.

obligation of respecting the content of the newly formed convention.[277] Last but not least, it is important to consider these international documents of the International Labour Organization, as the fundamental legislations which paved the way for the adoption of the UN Declaration on rights of Indigenous peoples.

2.2 Fundamental articles included in the Declaration of Indigenous peoples' rights

The necessity to secure local groups' rights has increased in the beginning of the twentieth century due to the fact that approximately 40 million indigenous peoples live in Latin America, constituting about 10 percent of the total population with a high percentage of them being concentrated in Bolivia and Peru.[278] Therefore, the United Nations adopted the Declaration on the rights of indigenous peoples, in 2007, in order to further promote and safeguard the freedoms of indigenous, stating firmly their right to self-determination, equality and maintenance of their customs. The last one is directly addressed in the article 15(1) of the declaration, since it is noted that indigenous' traditions and culture shall be reflected in the education and public information. As far as their political and economic status are concerned, it is clearly stated in the document, that indigenous groups hold the right to improve the conditions of their employment, training, economic and social life. Furthermore, the declaration reaffirms that the territories and the natural resources which have been acquired and possessed by the indigenous constitute a part of their property. Moreover, the Articles 41 and 42 of the document emphasize on the contribution and cooperation of other organs and agencies of the United Nations with a view to ensuring the application of indigenous peoples' freedoms.[279] As a result, the United Nations Development Programme (UNDP) as well as the United Nations Environmental Programme (UNEP) were encouraged to implement policies concerning the status of tribal groups.

To begin with, the UNDP and the UNEP have conducted research pertaining to the living conditions of indigenous peoples with a view to accumulating valuable information about the indigenous' communities, their participation in decision-making as well as their contribution in sustainable development. More specifically, the United Nations Development Programme (UNDP) has recognised the 'right to development', which aims at taking into consideration indigenous peoples' suggestions and experiences prior to drafting any kind of development planning. In this way, disadvantageous policies for the local communities will not be adopted and their traditional rights will be respected. Additionally, the UNDP emphasizes on the unequal

[277] ibid.
[278] Sieder (n 275) 1.
[279] United Nations General Assembly, 61st session, A/RES/61/295, 2007, arts 15(1), 21,26(1), (2), 41 and 42.

access of indigenous to fundamental social services, such as healthcare, potable water and education.[280] As a result, the organization categorises the tribal groups among the less economically developed population. In fact, the UNEP has estimated that 'indigenous peoples constitute about 5% of the world's population but comprise about 15% of the world's poor'. Therefore, both organizations are engaged to reduce the poverty levels and assist the indigenous communities to pursue economic growth.[281]

The UNDP stresses out the important role of the tribal groups in the preservation of the ecosystem, through the use of environmentally friendly agricultural practices and their respectful behaviour towards the land and natural resources. Nevertheless, the UNEP expresses its deep concern regarding the conservation of locals' natural habitat, which is under threat due to climate change. More specifically, the indigenous often face natural disasters which can lead to food insecurity as well as loss and damage of territorial property. In addition, despite the implementation of new policies for the decrease of climate change, such as mono-crop plantations for biofuels, they can have a severe impact on the ecosystem and the water supply of indigenous peoples. To make matters worse, the governmental forces often question the ownership of traditional indigenous lands and proceed to their usurpation.[282] As a result, heavy deforestation and industrialization are allowed, even in protected areas, without the consent of indigenous. Fortunately, the UNEP along with UNDP and the FAO have developed the UN Collaborative programme on reducing emissions from deforestation and forest degradation (REDD), in order to protect the indigenous communities from pollutant actors. This UN-REDD Programme ensures the free consent of the natives prior to the enforcement of a governmental development policy, with respect to their carbon rights as well as the preservation of biodiversity.[283]

In addition, in 2012, the Secretary General of UN adopted measures along with the contribution of HRC, in order to facilitate the participation indigenous peoples' representatives in the meetings and procedures of the UN, which affect their rights and livelihoods.[284]

2.3 Constitutional reformations in Latin America from 1990s to the 21st century

2.3.1 Bolivia

The state of Bolivia has been one of the first in Latin America to introduce constitutional and

[280] UNDP and the Indigenous Peoples: A Policy of Engagement,2015, paras 35 and 42.
[281] UNEP and Indigenous Peoples: A Partnership in Caring for the Environment Policy Guidance, 2012, para 8(3).
[282] ibid.
[283] ibid, 6.
[284] United Nations General Assembly, 69th session, A/69/271, para 23.

legislative modifications, not long after the ratification of the ILO convention No169. To begin with, in 1994, the Bolivian constitution included two fundamental articles, recognising the multicultural and multilingual nature of the country, as well as indigenous peoples' customs, lands and freedoms. During the same year, a new Law on Popular Participation was approved, which referred to the alteration of governance. The rural organizations as well as neighbourhood councils in the cities were officially recognised as territorial base organization (OTB). The LPP actually implemented decentralization policies that benefited municipalities with a better and more fair distribution of tax revenues. Moreover, it contributed to the integration and active participation of indigenous communities in the government monitoring through bodies, such as the Oversight Committees. As a result, the citizen of each municipality acquired political power, significant resources and cooperated closely with the OTB to succeed in their goals. Along with the enforcement of LPP, Bolivia entered in force a Law of Educational Reform, which recognised bilingual education as well as the contribution of local organisations in the implementing of new educational strategies. As a result, the form of education was harmonized with multiculturalism, whereas in the twenty-first century the Bolivian state provided indigenous students with scholarships and significant financial support.[285]

What is more, in 1996, the INRA Law was introduced, with a view to boosting agricultural production and its connection with the wider market, as well as ensuring indigenous properties. As far as the territories of indigenous peoples are concerned, the Tierra Comunitaria de Origen (Community Land of Origin) was implemented in order to cover both land and natural resources, which belonged to indigenous. The recognition of the territories as TCOs came along with beneficial legislative mechanisms such as tax exemptions and the right of ownership of the indigenous properties.[286]

After the ratification of the United Nations Declaration on the rights of Indigenous peoples, the Bolivian state assimilated the document in its domestic legislation. In 2009, it proceeded in the adoption of a new constitution, which included and safeguarded local groups' legislations, customs and territorial properties. In addition, the constitution established the right of indigenous to self-determination and self-governance, therefore leading to the implementation of the right to prior consultation of the State for the drafting of legislations which have an impact on the indigenous societies. Moreover, Bolivia recognised as official languages, not only Spanish but also all 36 spoken by indigenous, contributing in this way in the promotion of their cultural

[285] United Nations Economic and Social Council, 16th session, E/C.19/2017/4, para.38
[286] Sieder (n 275) 79-80.

identity.[287] In the health sector, the state of Bolivia enacted in 2013 the 'Ancestral Bolivian traditional medicine act', with a view to integrating the traditional medicines and practices of the indigenous communities in the national health system. Last but not least, the participation of indigenous peoples in the electoral system as well as their capability to become representatives of governmental bodies were established. For instance, the President of the state of Bolivia, Evo Morales, was elected from the indigenous societies and served for the presidential term 2006-2019.

2.3.2 Ecuador

The constitution of Ecuador, which was first applied in 1998, was undoubtedly pioneering, since it established the participation of indigenous and local organisations in the drafting of new legislative measures. The new constitution also addressed similar issues and rights with the constitution of Bolivia and took a step forward, by recognising the right of indigenous peoples in political participation and decision making processes.[288] In 2008, amendments were entered into force and the new constitution of Ecuador recognised 21 rights of indigenous societies. More specifically, the right of prior consent was established, regarding the development projects on the territories of indigenous peoples, who could also gain a merit of the profitable projects. Moreover, the natives acquired the right to be compensated not only for the destruction caused on their properties, but also for the impediments set on their cultural expression and social life. Another important alteration of the new constitution, was the recognition of all human rights, which had been adopted in international treaties and legislations.[289] Lastly, the state of Ecuador contributed in the promotion of traditional medical practices in the public hospitals.[290]

2.3.3 Brazil

The constitution of Brazil was adopted in 1988 and included certain sections referring solely to indigenous peoples' rights. More specifically, the natives are considered by the constitution as the first owners of the land, recognising their right to live in and manage the traditional territories. What is more, authorization of the National congress is required for the eligible/ legal extraction of natural riches from indigenous lands. Additionally, the indigenous people cannot be overthrown or displaced from their territories, except for the cases of natural disasters and only

[287] United Nations Department of Economic and Social Affairs, ST/ESA/ 371, 4th volume, 2019, 9.
[288] Sieder (n 275) 32.
[289] E/C.19/2017/4, para 10.
[290] ibid para 37.

after the official decision of the National Congress.[291] Throughout the years, the Brazilian constitution has introduced a number of amendments, the last ones having been entered in 2019. Nevertheless, none of these alterations has been made regarding the rights of indigenous peoples, therefore creating a valid reference for the protection of their freedoms.

It is estimated that Brazil holds a great number of indigenous populations, since almost 14% of the lands are owned and cultivated by the indigenous. What is more, the majority of these lands are situated in the Amazon rainforest, which has been facing a great threat during the last decade, especially from the large-scale development projects, such as the construction of hydroelectric dams or the operation of mines. To make matters worse, the election of Jair Bolsonaro, in 2019, as President of Brazil has increased the threats posed to indigenous communities. This is mainly due to Bolsonaro's policies, which authorize the exploitation of traditional territories, natural resources and impede the demarcation of indigenous peoples' lands.[292] According to data collected from *Instituto Nacional de Pesquisas Espaciais* (National Institute for Space Research), in August 2019, a high rate of deforestation on indigenous territories was noted- 65% higher than that of the previous year. Experts believe that the increasing rate of forest loss contributed also in the wildfires of the Amazon in summer 2019. In fact, satellites recorded around 90,000 fires in the Amazon, 30% higher than in 2018.[293]

3. IACHR cases regarding violations of indigenous peoples' rights

3.1 Kichwa indigenous people of Sarayaku

The Sarayaku people traditionally occupy the territory in the southern part of the Ecuadorean amazon, which is called 'Autonomous Territory of the original Kichwa Nation of Sarayaku'. The indigenous population depends on the natural resources of the land and manage to be self-sufficient through fishing, farming and ecotourism in their region. Despite their autonomy, the Sarayaku indigenous peoples are threatened by the exploitation of their land by large oil companies, since Ecuador's economy is highly based on the export of petroleum. When in 1996, the state of Ecuador granted the land of Sarayaku to the gas company *Compania General de Combustibles (CGC)*, omitting any process of prior consent from the indigenous peoples, a number of disrespectful strategies were established, leading to the violation of locals' rights. The Sarayaku

[291] Constitution of the Federative Republic of Brazil, ch VIII, art 231, paras 1, 2 6 and 7.

[292] International Work group for indigenous affairs(IWGIA), Indigenous peoples in Brazil, election of Jair Bolsonaro as president (2020) < https://www.iwgia.org/en/brazil.html> accessed 10 August 2020.

[293] Jornal Nacional, 'Focos de queimadas na Amazonia aumentam em 2019, informa o Inpe' (2020) <https://g1.globo.com/jornal-nacional/noticia/2020/01/08/focos-de-queimadas-na-amazonia-aumentam-em-2019-informa-o-inpe.ghtml> accessed 10 August 2020.

people protested that the government violated the UN Declaration on the Rights of Indigenous Peoples and stressed out the destructive consequences of the oil company for their territory and environment.[294]

In 2003, the Sarayaku community along with the *Centro de Derechos Económicos y Sociales* (Centre of Economic and Social Rights) and the Centre for Justice and International Law, managed to bring the case before the Inter-American Commission on Human Rights, which recorded human rights violations by the CGC. More specifically, the private oil company not only proceeded to the exploration of mineral wealth, but also put explosives on the indigenous land, limiting the indigenous peoples' right of movement and posing their lives to a great risk. Fortunately, on July 6,2004 the IACHR ordered provisional measures and in 2010 undertook the case for the final judgements. The Inter American court recognised the violation of indigenous rights to their property, to life and judicial protection, freedom of movement, personal integrity and state's obligation to give domestic legal effect to rights.[295]

The following year, the state of Ecuador requested that the court orders an expert appraisal, with the purpose to observe the legal and socio-environmental conditions of the case and implement a safe mechanism to neutralize or remove any explosive materials that could be found on the indigenous territory. In this regard, the I.A. commission of HR stressed out that the prior consent and consultation of the Sarayaku people was imperative for the withdrawal of the explosives. Nevertheless, the President of the court found that it was not essential to appoint experts[296], albeit it accepted the state's invitation to conduct a visit and the appropriate research on the territory of indigenous, registering the violations which took place. Therefore, on the 21st of April 2012, the commission, the President, the Secretary and two members of the Secretariat staff of the court visited the land of the Sarayaku indigenous peoples.[297] There, the members of the Court heard the statements from the indigenous. Also, representatives from other indigenous communities of Ecuador were present. There, the Court's delegation heard several statements

[294] Cultural survival Quarterly Magazine, Confirming Rights: Inter-American Court Ruling Marks Key Victory for Sarayaku People in Ecuador (2012) <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/confirming-rights-inter-american-court-ruling-marks-key>, accessed 16 August 2020.

[295] I/A Court H.R., Kichwa Indigenous people of Sarayaku v. Ecuador Merits and Reparations, Judgment of June 27,2012, Series C No. 245.

[296] Pueblo Indígena Kichwa de Sarayaku. Resolución del Presidente de la Corte IDH de 20 de enero de 2012, paras 4, 5 and 6.

[297] Rules of Procedure of I/A Court H.R., art 58(a) states that: 'The Court may, at any stage of the proceedings obtain on its own, any evidence it considers helpful and necessary. In particular it may hear any person whose statement, testimony, or opinion it deems relevant as an alleged victim, witness, expert witness, or in any other capacity'.

from members of the Sarayaku community and afterwards the President of the Court gave the floor to the Secretary for Legal Affairs of the Presidency of the Republic of Ecuador, Alexis Mera. More specifically, she highlighted as follows: 'Oil exploitation should benefit the communities. However, the fact is that historically the State has acted behind the backs of the indigenous peoples. That is the historical reality of this country; because the State has acted behind the backs of the indigenous people, oil exploration has been carried out to the detriment of communities. However, we don't want this system, this Government does not want it, and therefore we will not allow any oil exploration to continue behind the backs of the communities. Instead, we will seek dialogue if we decide to resume oil exploration or think about a new oil project here'.[298]

At last, the IACHR recognised on the 27th of June 2012, in accordance with the international law, that the state of Ecuador held the obligation to provide the appropriate reparation to the Sarayaku people. This reparation of damage included not only the noble restitutio in integrum[299] but also compensation for the pecuniary and non-pecuniary damage caused, as well as the state's act of acknowledgment of international responsibility for violation of human rights. As far as the pecuniary damage is concerned, it was considered the detrition of indigenous territories and natural resources, whereas the non-pecuniary damage referred to the impediments set on the survival, social and cultural expression of the Sarayaku as well as the effects on health. In fact, the indigenous people of the Sarayaku committed themselves to the protection of their territories from the oil company, thus leaving their prior activities. In addition, they faced serious food shortages and as a result the indigenous community was threatened by a number of illnesses. After the court's judgment in 2012, a resolution was made in 2016 concerning the supervision of compliance with the aforementioned ruling , in order to ensure that the Sarayaku people will be compensated and the state of Ecuador will comply with their internationally recognised rights.

[298] ibid, para 23, (emphasis added).
[299] Restoration to the conditions prior to violation of human rights.

3.2 Xucuru indigenous

The Xucuru indigenous community, according to historical documents, has occupied the state Pernambuco of Brazil since the 16th century. Nowadays, the indigenous population living in this region exceeds the seven thousand people, who have developed their organizations, which hold significant political power. More specifically, the Xucuru people have introduced political organs, such as the Assembly, *the Ororubá* Indigenous Health Council, an Internal Commission for resolving issues within the community and a Council of Leaders. Regarding their rights on the region, the Constitution of Brazil of 1988 recognises the indigenous peoples' right over their lands and territories. What is more, indigenous areas belong to the Union, which ensures permanent possession to indigenous people, as well as exclusive usage of the resources of these lands. However, the demarcation of indigenous properties constitutes an essential measure, so that violations of their rights and conflicts with the state are avoided. Therefore, in 1996 the Ministry of Justice regulated by Ordinance, the demarcation and titling process of indigenous territories. This process consists of five stages, thus being significantly bureaucratic, and is carried out by the *Fundação Nacional do Índio* (National Indian Foundation), whereas the final approval for the demarcation is given by the President of the Republic.[300] What is more, the procedure involves the immediate removal of the non-indigenous found to occupy the indigenous land, by the decision of the Ministry of Justice. In 1989, the procedure of demarcation initiated in the Xucuru land along with the adoption of the Technical Group, which was responsible for the identification and delimitation of the territory. Therefore, the Technical Group indicated in 1989 that the Xucuru people had the right to an area of 26,980 hectares, which in 1995 was broadly extended. According to the Technical Group, a major part of the indigenous land was occupied by non-indigenous, who were not removed, as the law dictated. To make matters worse, the President of the Republic published a new decree on the 8th of January 1996, which implemented important alterations in the process of demarcation. More specifically, it recognized the right of third actors, interested in the indigenous territory to challenge the demarcation procedure and file legal actions for their right to property. As a result, non-indigenous could challenge the report on identification and setting of boundaries on indigenous land. As it was expected, a number of protests and objections were noted regarding the new ordinance.[301]

[300] I/A Court H.R., Case of the Xucuru Indigenous People and its members v. Brazil Judgment of February 5, 2018 Series C No. 345, paras 60, 61, 63.

[301] IACHR, report No. 98/09 Petition 4355-02 Admissibility Xucuru Indigenous People Brazil 29 October,2009, paras 13 and 14.
<https://www.cidh.oas.org/annualrep/2009eng/Brazil4355.02eng.htm> accessed 20 August 2020.

The situation led in 2002 in the installing of a petition from the *Movimento Nacional de Direitos Humanos* (National Human Rights Movement),*the Gabinete de Assessoria Jurídica às Organizações Populares* (Legal Advisory Office for Popular Organizations) and the *Conselho Indigenista Missionário* (Missionary Indigenist Council) to the I/A commission of HR against the state of Brazil. The petition submitted to the IACHR emphasized on the violation of Xucuru indigenous peoples' rights. In specific, it included their right to property due to the delay in the administrative process of regulation, recognition and demarcation of indigenous territories, the right to judicial protection as well as the occupation of Xucuru lands by non-indigenous groups. In fact, the non-indigenous occupied 70% of the Xucuru land and as a result frequent conflicts as well as insecurity had been aroused.[302]

The following years, the IACHR ordered precautionary measures for the state of Brazil and in 2015 it published a merits report, in which the Commission included a number of recommendations to the Federal republic of Brazil. Firstly, the state had to introduce legislative and administrative measures, in order to displace the non- indigenous people from the traditional territories of Xucuru people. In addition, the Commission highlighted that the state of Brazil was responsible for the preservation of indigenous cultural integrity as well as their economic structure. It also had the obligation to complete the legal cases brought by non-indigenous groups, concerning the territory of the Xucuru indigenous people and simultaneously respect the natives' right to jurisdictional protection. What is more, the IACHR encouraged Brazil to take the necessary measures for the reparation of any damage caused to the Xucuru, during the long period of demarcation. Nevertheless, the state of Brazil did not comply totally with these recommendations, thus the IACHR brought the case of Xucuru people before the I/A Court of H.R. in 2016.[303] Finally, in 2018, the Court acknowledged Brazil's responsibility to compensate the indigenous and adopt strategies to avoid a future violation of their rights.

4. Jair Bolsonaro's political strategies and the underestimation of indigenous peoples

4.1 The Decree MP 870 and indigenous' demonstrations

It is undeniable that in spite of the constitutional and international protection of indigenous communities' human rights, the governments of each state face impediments in their practical application. Regarding the Federal Republic of Brazil, the newly elected president Jair Bolsonaro

[302] ibid. paras 1,2 and 16.
[303]IACHR, Report No. 44/15, Case 12.728 Merits, Xucuru Indigenous People Brazil July 28, 2015 ch VII.

is implementing policies, which prioritise economic growth, without taking onto consideration the issues of climate change and the violation of indigenous people's freedoms. Additionally, he refuses to continue the demarcation of indigenous territories and his first political action has been the issuance of a provisional measure (MP 870), which introduces the restructuring of the body responsible for demarcations, namely the National Indian Foundation (FUNAI). More specifically, in January 2019 the FUNAI lost its right to carry out the demarcations, since this power was transferred primarily to the Ministry of Agriculture and then to the Ministry of Justice- which was later recognised as the Ministry of Human Rights, Family and Women. Both of these political acts were criticised, since on the one hand the Ministry of Agriculture could create a challenging and unsafe climate for the protection of indigenous lands, whereas the newly-launched Ministry of Human rights, Family and Women lacked significant political power, thus being vulnerable to the violation of indigenous peoples' rights. What is more, it was considered that the Ministry of Agriculture represented the vested interests of the agribusiness sector and as a result a great delay of the demarcation was noted. Therefore, a number of indigenous territories were left unprotected and vulnerable to exploitation.[304]

The decree of Jair Bolsonaro MP 870 was found unconstitutional by the Brazilian Social Party (PSB), albeit the Justice Luís Roberto Barroso on the 24th of April 2019, rejected the injunction of unconstitutionality. Nevertheless, the presidential provisional measures must be approved by Congress to become law within 60 days, with a possible extension of another 60 days. Therefore, the MP 870 was given an extension until June, when the Supreme court would carry out the ruling.[305] This whole situation of uncertainty for indigenous rights resulted in protests from the indigenous people in the capital of Brazil, Brasilia. In specific, around 4,000 indigenous peoples organized the three-day annual 'Free Land' demonstration, with a view to expressing their objection to the policies of president Bolsonaro, who supports indigenous' assimilation. The protesters carried stating 'Our land is sacred' and 'We demand the demarcation of our lands'. Also, the indigenous communities highlighted that they fight not only for the respect of their constitutional rights, but mostly for their right to life and protection from threat of genocide.[306]

[304] Karla Mendes, 'Brazil Supreme Court Land demarcation decision sparks indigenous protest, 26 April 2019 <https://news.mongabay.com/2019/04/brazil-supreme-court-land-demarcation-decision-sparks-indigenous-protest/> accessed 20 August 2020.

[305] Thais Arbex, 'Supreme Court Keeps Demarcation of Indigenous Lands with Indigenous Agency President tried to reverse Congress decision and return it to Agriculture ministry' August 2, 2019 <https://www1.folha.uol.com.br/internacional/en/brazil/2019/08/supreme-court-keeps-demarcation-of-indigenous-lands-with-indigenous-agency.shtml> accessed 20 August 2020.

[306] BBC, 'Brazil's indigenous people: 'We fight for the right to exist'', April 25, 2019 <https://www.bbc.com/news/world-latin-america-48050717>accessed 20 August 2020.

At last, on 3rd of June 2019, the Supreme Federal Court suspended President Jair Bolsonaro's decree to transfer the demarcation of Indigenous lands from FUNAI to the Ministry of Agriculture. Fortunately, the Constitution of Brazil recognises that legislation or provisional measure which has been rejected cannot be brought again for issuance.[307]

4.2 Regulating the mining operations on indigenous lands: a poisonous scenario

The indigenous territories in Brazil, particularly those concentrated in the Amazon rainforest, are threatened by illegal deforestation, infrastructure projects as well as mining operations. In regard to the last one, President Jair Bolsonaro drafted a bill on the 5th of February 2020, legalizing the exploitation of natural and mineral wealth in Indigenous areas. In this way, he contributed to the increase of timber loss and deteriorated the environmental impact on the soil and natural resources, on which indigenous peoples depend their survival. It is important to highlight, that the Constitution of Brazil 1988 does not allow mineral exploration on Indigenous lands, whereas it establishes that 'the use of the water resources, including for energy, exploration and extraction of the mineral wealth of Indigenous lands may only be undertaken with the authorisation of the Congress, having first heard the communities affected and ensured their participation in the benefits of the mining, in accordance with the law'.[308] Therefore, the bill of Jair Bolsonaro does not benefit the indigenous communities, albeit it authorizes unconstitutional projects.

According to *Instituto Socioambiental* (Socio environmental Institute), not only a number of indigenous lands in Brazil suffer from gold extraction, but also requests for mineral exploration cover one third of indigenous territories. For instance, Yanomami indigenous peoples complain that the mines operating in their lands contribute to the increase of mercury concentration, which can cause serious health issues, even fatal ones. In fact, a research carried out by the Ministry of Health, discovered a significant mercury concentration in young people and women of the Yanomami indigenous, which exceeded the limit set by the WHO.[309]

Another mining project has been evolving, in the Volta Grande Brazilian region. This work was introduced by the Belo Sun mining company, which constructed the Belo Monte Hydroelectric Power Plant last year. Objections have aroused regarding the environmental consequences of the Volta Grande plan, since it aims at using cyanide to treat the minerals. Constituting such a toxic substance, the cyanide can cause detrimental poisoning and damage to the soil. Therefore, a number of indigenous lands will not be cultivated effectively, and the indigenous peoples will be

[307] ibid.
[308] Constitution of the Federative Republic of Brazil, ch VIII, art 231, para 3.
[309] Maria Laura Canineu and Andrea Carvalho, 'Bolsonaro's Plan to Legalize Crimes Against Indigenous Peoples', 1 March 2020, Human Rights Watch.

ultimately forced to displacement.

4.3 Brazil's Supreme Court decisions for the protection of indigenous during the pandemic

Brazil is one of the countries with the most coronavirus cases, whereas according to the country's Special Indigenous Health Service (SESAI), more than 8000 indigenous people have been infected and suffered from the pandemic. Nevertheless, the Supreme Court of Brazil has taken initiatives, in order to limit the contagion.

More specifically, on 8 May 2020, the coalition of Indigenous peoples in Brazil with the contribution of six political parties requested from the *Supremo Tribunal Federal* (Federal Supreme Court) to order the effective protection of indigenous societies by the governmental actors. This petition was introduced due to the infection of indigenous peoples from Covid-19 as well as the unconstitutional omission of the state to halt the contagion within this vulnerable community. The state of Brazil, instead of safeguarding the indigenous fundamental rights to life, safety and healthcare, it left them exposed to the spread of the pandemic. As the defenders of indigenous argued, the local groups in Brazil do not hold significant political power nor representation, thus lacking access to essential public services, such as health. In fact, it is not strange that indigenous nurses often take care of the infected people, by providing them with basic medicines and painkillers, which unfortunately are not powerful enough to cure them. Additionally, their traditional ways of living and intimate social relations increase the risk of the virus' transmission within the indigenous societies. Therefore , the Federal Supreme Court decided the creation of sanitary barriers to particularly ensure the protection of the isolated Indigenous peoples, the provision of extensive support to the indigenous health system and the drafting of a plan for the removal of invaders from indigenous lands, with a view to preventing conflicts during the pandemic.[310]

Unfortunately, on the same date, the president Jair Bolsonaro vetoed the access of indigenous peoples to free hygiene products, potable water and distribution of disinfection tools. In addition, he did not accept the provision of emergency funds and healthcare units for the hospitalization of the indigenous groups. Through this action, the local communities were exposed to a higher threat of infection and death cases regarding the indigenous aroused.[311] What is more, in June

[310] STF Portal, 'STF endorses measures to fight Covid-19 on indigenous lands' May 8,2020, decision < http://www.stf.jus.br/repositorio/cms/portalStfInternacional/portalStfDestaque_en_us/anexo/STFdecisionindigenouspeoplesCovid.pdf> accessed 21 August 2020.

[311] Rodrigo Pedroso and Zamira Rahim, 'Brazilian President Jair Bolsonaro vetoes Covid-19 protections for indigenous people', 8 July 2020, CNN

2020, the health ministry of Brazil halted the release of cumulative totals for deaths and cases of the coronavirus pandemic in the country. The Federal Supreme Court reacting to this action, ordered the immediate publication of the epidemiological data. The Justice Alexandre de Moraes stressed out the state's obligation to comply with the transparency legislations and the inalienable right of the public to be effectively and constantly informed for the governmental actions. In the same line of thought, he highlighted that Brazil was suffering from a serious health emergency and thus all decision-making bodies had to prioritize the monitoring of public health protection.[312] Lastly, Justice Moraes urged for 'the collection, analysis ,storage and dissemination of relevant epidemiological data, with a view to preventing disastrous consequences for the Brazilian population'.[313]

5. Conclusion

Although facing a number of challenges in their everyday life and constituting a vulnerable group of people, the indigenous communities in Latin America manage to preserve their natural habitat and fight against all the menaces, in order to safeguard their fundamental right to exist. Despite the major threats that the indigenous peoples face, such as the development projects, the hydroelectric dams and the illegal exploitation of their territories, they have developed an important cooperation system with the United Nations, relevant bodies, as well as other international organizations. The assistance of those organizations has been significant, particularly for the establishment and the universal recognition of the indigenous peoples' rights. Having also endorsed legislative measures for the protection of indigenous from the unconstitutional governmental actions of each country, these international agencies have contributed in the preservation of indigenous' unique customs, laws and traditional lands.

What is more, a series of constitutional amendments have been introduced in many Latin American countries, based on the ratification of The United Nations Declaration on the Rights of indigenous peoples. This important document not only has led to the recognition of indigenous' fundamental rights to property, life and healthcare, but has also attributed political power to the indigenous societies, enforcing their political participation and election. Nevertheless, in spite of

<https://edition.cnn.com/2020/07/08/americas/brazil-jair-bolsonaro-coronavirus-intl/index.html> accessed 21 August 2020.

[312] STF, 'Ministry of Health to restore full release of data on Covid-19', June 9,2020 <http://www2.stf.jus.br/portalStfInternacional/cms/destaquesClipping.php?sigla=portalStfDestaque_en_us&idConteudo=445214> accessed 22 August 2020

[313] BBC, 'Coronavirus: Brazil resumes publishing Covid-19 data after court ruling', June 9,2020 <https://www.bbc.com/news/world-latin-america-52980642?intlink_from_url=https://www.bbc.com/news/topics/cmj34zmw77wt/brazil&link_location=live-reporting-story> accessed 22 August 2020, (emphasis added).

the alterations which have been introduced, still a number of Latin American countries continue to question and violate the rights of the indigenous peoples. More specifically, as the legal cases of the IACHR have proved, great disputes have aroused between the states and the natives, regarding the fair demarcation of their lands, the exploitation of their natural resources and the contamination of their soil from mining operations. Fortunately, the IACHR has taken effective measures to enhance the accountability of the states at international and national level, through ordering compensation and reparation of the damage caused to the indigenous property.

Despite the Court's significant contribution, the situation in Brazil has deteriorated for the indigenous societies, since the election of the president Jair Bolsonaro. Having implemented policies and drafted bills which authorize violations on indigenous lands, Bolsonaro has supported the assimilation of indigenous peoples, thus contributing to the loss of their traditions and culture. The president has shown an overwhelming interest in the economic boost of the country, neglecting the environmental impact of large-scale development works and the deterioration of climate change. Nowadays, the pandemic of coronavirus has hit Brazil seriously and it proves that it's high time drastic alterations were established, since the indigenous communities are not guaranteed access to the Health system.

A similar nightmare to the Brazilian indigenous, has evolved in the indigenous societies of Ecuador, where the development projects of oil companies continuously violate the right of the indigenous to prior consent. It is also evident that these large-scale projects not only cause severe illnesses to the natives, but also force them to displacement.

All the above lead to the consideration that the reduction of the demarcation of the lands of the natives in contrast to the increased and heavy industrial activity in their areas, the political strategies for assimilation as well as the reluctance of the States to guarantee the provision of hygiene products and healthcare units for the protection of the indigenous by the coronavirus pandemic, constitute tactics which will gradually lead to the loss of cultural identity, destruction of their properties and therefore expose the natives to relocation and risk of their lives. Without a land to preserve, a language and a culture to pass on and with the pandemic threatening their existence, the appalling scenario of genocide of the indigenous tribes will be fulfilled.

Therefore, the Latin American countries should prioritize the promotion of non-discriminatory policies and pursue the gradual integration of indigenous peoples in the implementation of beneficial laws and strategies. In addition, governmental actions should combine development with respect towards other cultures and go hand in hand with the nobles of equity and diversity. It is important for the states to realize the beneficial role of indigenous communities not only in the

preservation of sustainability, but also in the creation of a multicultural environment. In this way, the indigenous peoples will be respected, and they will not have to deal with the threat of genocide.

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ONLINE PLATFORMS AND THE NEED FOR REGULATORY DATA ACCESS UNDER COMPETITION LAW

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Abstract

Digital platforms have been dominating both the social and economic developments in recent years. While direct and indirect network effects, low transaction costs, and economies of scale mostly lead to highly efficient and desirable results for the respective markets, platform markets exhibit a tendency to tip, which is fuelled by locking users in with high switching costs. The dominant firm in a tipped market can further impair competition by asserting and expanding its dominance horizontally and vertically, ultimately resulting in a restriction of the open market. To prevent possible market failures as well as create efficiency in the market, new regulation should apply ex-ante, unlike the current competition framework, which up to now mostly relies on ex-post sanctions. The punitive focus on infringements leads to lengthy legal proceedings that cannot keep pace with the dynamic environment of the digital economy. Advantages of ex-ante regulation are underestimated; the authors are, therefore, making a case for regulatory access to data exclusively held by dominant companies. There are several types of data that providers of upstream and downstream services and competitors of a platform could be interested in. Under the premise that data as a non-rival good can be utilised versatilely and thus benefit society, the framework for data exchange is outlined throughout this paper. Moreover, the European Union has made first advancements in sharing public service information with the Open Data Directive, yet the structural problem of monopolistic platform markets remains to be solved. A new framework should introduce obligations of data exchange with restrictions depending on the genesis, and subsequent use of data as well as the market environment.

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1. Characteristics of platform markets

1.1 Platforms as a catalyst for a new form of economic activity

Facebook, Amazon, Netflix, and Google are dominating our everyday social life as well as economic development. These so-called *FANGs*[315] represent various kinds of digital platforms catalysing and reshaping recent economic activity.[316] The meteoric rise of platforms[317] is best observable in these prominent companies, which were mostly based on the typical platform business model.[318] FANGs represent exchange of any kind – be it technical, commercial, or social. They connect individuals, offer new sales channels to small and medium-sized companies[319] and allow dominant market participants to generate colossal profits.[320] Concurrently, these developments are accompanied by uncertainties about platforms' place within the legal framework,[321] taking unrestrained competition and consumer protection into consideration. The fact that digital platforms are subject to a detailed debate[322] is shown in particular by the changes in law, both currently discussed and already introduced. This paper intends to identify concrete dangers that follow the rise of digital platform markets as well as deficient regulations. The focus lies on the importance of preventive regulatory measures in what currently is a predominantly repressive system, particularly considering the need for data access for competitors.

1.2 Convergence of FANGs

Various platforms are commonly mentioned in the same breath despite their differences[323]since their business activities converge nowadays. At this point, therefore, reference is made to the

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[315] Nicolas Petit, *Are 'FANGs' Monopolies? A Theory of Competition under Uncertainty* (SSRN Electronic Journal tr, 2019) 1.

[316] For a brief historic overview of online marketplaces see Glenn Ellison and Sara F Ellison, 'Lessons About Markets from the Internet' (2005) 19(2) J Econ Perspect 139, 142–148.

[317] Andreas Engert, 'Digitale Plattformen' (2018) 218(2-4) AcP 304, 305.

[318] ibid.

[319] Regarding medium-sized companies see Christoph Busch, *Der Mittelstand in der Plattformökonomie: Mehr Fairness für KMU auf digitalen Märkten* (WISO Diskurs 2019, 08, Friedrich-Ebert-Stiftung 2019).

[320] For recent figures of FANG revenue and market evaluation see Eduard Yardeni and Joe Abbott, 'Industry Indicators: FANGs' (2020) 7 <www.yardeni.com/pub/yardenifangoverview.pdf> accessed 30 August 2020; See further Engert (n 317), 305.

[321] Moreover, even basic assumptions of economics are questioned: 'Economic models on which our competition laws are arrayed may lose relevance as a result of industry change.', Petit (n 315) 1 with further references.

[322] For an example of a debate on German federal level see the report of the German Commission Competition Law 4.0, 'A New Competition Framework for the Digital Economy' (2019) <www.bmwi.de/Redaktion/DE/Publikationen/Wirtschaft/bericht-der-kommission-wettbewerbsrecht-4-0.pdf?__blob=publicationFile&v=12> accessed 26 August 2020.

[323] Further distinction between platforms and mere aggregators can be made. While the former can directly impact the product and services built on top of them, e.g. Apple OS and iOS, the latter can only affect how products and services are displayed, e.g. App Store. While aggregators can exclude competitors by way of contract, platforms can additionally alter technical ports and thus create factual barriers for third parties. Cf. Thibault Schrepel, 'Google, Facebook, and Amazon are no platforms' (Concurrentialiste 2020) <https://leconcurrentialiste.com/not-platforms/> accessed 20 August 2020.

correct assessment of the UK's Competition and Markets Authority, according to which the various problems associated with different platform types also require case-specific regulation.[324] Recognizing the risk of over-regulation from a generalising perspective is nevertheless indispensable. Given the complex particularities of individual FANGs, the discourse should start from a typified standard platform before considering divergent regulations of individual cases. Subsequently, a presentation of converging properties common to the FANGs is given.

1.3 What makes digital platforms successful?

1.3.1 Low transaction costs

Platforms have a wide array of advantages as opposed to traditional market players. For better comprehension, returning to a classic of microeconomics is helpful. In his paper 'The Nature of the Firm' from 1937 Ronald Coase explained the emergence of companies by examining *transaction costs*.[325] If goods as simple as a sandwich or as complex as a car were to be reinvented, built and sold ad hoc each time, the transaction costs would be unbearably high. But a company that can combine know-how, production facilities for large scale operations and sales structure under one roof could in contrast reduce costs enormously – briefly giving reason to the existence of companies.[326]

Digital platforms are highly effective in reducing transaction costs by establishing a place of exchange between suppliers and buyers.[327] A striking example is that of an application developer. A one-person company can reach an audience of millions without much marketing effort by posting its program on the respective app store platform. Standardised technical specifications defined by the platform operator further decrease the costs and thus enable the efficient development of applications.[328] Consequently, the cost-efficiency of platforms has undeniably

[324] 'Different platform characteristics will give rise to different issues, and regulation must remain case-specific if we are to minimize the risk of applying the wrong rule to a novel situation. […] Given the significant differences between the business models of the main digital platforms, one must be skeptical a priori about the extent to which any type of broad-brush legislation or economic regulation could provide satisfactory outcomes across such a wide variety of different situations.' See Alex Chisholm and Nelson Jung, 'Platform regulation — ex-ante versus ex-post intervention: evolving our antitrust tools and practices to meet the challenges' (2015) CPI Journal, 2f.

[325] Ronald Coase, 'The Nature of the Firm' (1937) 4(16) Economica New Series 386.

[326] See also Karl Lichtblau and Roman Bertenrath, 'Marktstrukturen: Auf dem Weg zu Monopolen?' in Ansgar Baums, Martin Schössler and Ben Scott (eds), *Industrie 4.0: Wie digitale Plattformen unsere Wirtschaft verändert – und wie die Politik gestalten kann.* (2015) 81f.

[327] For a introduction to the concept of two-sided markets see Jean-Charles Rochet and Jean Tirole, 'Platform Competition in Two-Sided Markets' (2003) 1(4) J Eur Econ Assoc 990; Jean-Charles Rochet and Jean Tirole, 'Two-sided markets: a progress report' (2006) 37(3) RJE 645; European Commission, 'Commission Staff Working Document Online Platforms Accompanying the document Communication on Online Platforms and the Digital Single Market {COM(2016) 288 final}' SWD (2016) 172 final 1.

[328] Ansgar Baums, 'Was sind digitale Plattformen?' in Ansgar Baums, Martin Schössler and Ben Scott (eds), *Industrie 4.0: Wie digitale Plattformen unsere Wirtschaft verändert – und wie die Politik gestalten kann.* (2015) 15f.

changed how far start-ups can go in a digitalised economy.

1.3.2 Inbuilt network effects

FANGs may also enable a much higher intensity of competition in the periphery than classic market structures can offer:[329] From the consumer's point of view, this overabundance is an almost ideal prerequisite,[330] as the platform becomes more useful for the individual user with an increasing number of users in total.[331] Supply and demand, consequently, both profit. Digital platforms are thus subject to the so-called *network effects*. A striking example is eBay increasingly appealing to vendors as a marketplace[332] when more potential customers visit the site. For a customer, on the other hand, the more offers there are, the more interesting it is to search for an offer on eBay. *Direct network effects* describe that increasing numbers of buyers attract more sellers and vice versa. Consequently, buyers benefit indirectly from other buyers' sharing the same marketplace, as well as sellers indirectly receiving more business opportunities through other sellers' competing with them, creating *indirect network effects*.[333]

The gains for both market-sides combined with dwindling transaction costs result in a macro-economic interest in the establishment of the largest-possible networks.[334] The development of platforms into key intermediaries on the Internet is, as shown, in many aspects, an efficient and inevitable market outcome.[335]

1.4 Understanding the business models

For proper regulation, it is also necessary to obtain clarity about the individual business models of FANGs. Firstly, platform operators have two possible sources of profit, the periphery and the end consumers.[336] Depending on the platform's strategy, these sources of profit are combined – as is the case with Airbnb and Expedia charging transaction or membership fees to both providers and consumers. [337] Occasionally, cross-subsidies also occur,[338] e.g. in below-cost retailing

[329] Regarding the question 'What drives competition in Internet markets?' see Justus Haucap and Ulrich Heimeshoff, 'Google, Facebook, Amazon, eBay: Is the Internet driving competition or market monopolization?' (2014) 11(1-2) IIC 49, 50ff.
[330] Lichtblau and Bertenrath (n 326) 82.
[331] Baums (n 328) 17 with further references.
[332] Example taken from Heike Schweitzer and others, *Modernisierung der Missbrauchsaufsicht für marktmächtige Unternehmen* (Nomos 2018) 18.
[333] Rochet and Tirole, 'Platform Competition in Two-Sided Markets' (n 327); Rochet and Tirole, 'Two-sided markets: a progress report' (n 327).
[334] Lichtblau and Bertenrath (n 326).
[335] Schweitzer and others (n 332) 18.
[336] Baums (n 328) with further references.
[337] Schweitzer and others (n 332) 21.
[338] For a detailed analysis of pricing models in two-sided markets see Glen Weyl, 'A Price Theory of Multi-Sided Platforms' (2010) 100(4) AER 1642.

of gaming platforms to consumers, cross-funded via fees paid by game developers for access to the platform.[339]

Considering the importance of economies of scale, it is clear why B2C platforms regularly offer their services to consumers for free. Financing of these platforms is in most cases provided by third-party companies seeking to display personalised advertising to customers. However, the users do indeed provide payment in return for these *free services* as well. On the one hand, they voluntarily enable the collection and processing of their data; on the other hand, they subsequently provide attention to the advertising itself.[340]

Finally, in the *freemium* category, these strategies are combined. A company offers a restricted product at zero monetary costs, payment however is required to use the full scope of the product. The restricted version thus attracts end-users who are either willing to purchase the full version or at least reinforce the existing network effects.[341]

Keeping the outlined business models in mind, it becomes clear why platforms rely on aggressive growth strategies – *scaling* – at an early stage to accumulate the critical mass of users for the network effects to flourish.[342] The history of Facebook alone proves that early-stage growth is crucial for the evaluation of a start-up, rather than having a fully developed business model.[343] This leads to the odd consequence of platforms continuing to grow without a clear vision of monetisation. Because once a platform is established, a business model will undoubtedly be found.[344] As will be discussed in detail later, platforms can deviate from classic business strategies and elude the sanctioning mechanisms designed for normal business operations by favouring growth over profit.

2. Do platforms impair competition?

The digital economy – in the words of the EU Commission – 'is no longer a special branch of industry but the basis of all modern, innovative economic systems'.[345] The question arises,

[339] Example taken from Baums (n 328) 16. There is no preclusion that cross-subsidising can not be recognised as an abuse of a dominant position, cf. Case T-175/99 UPS Europe [2002] ECR II-01915 para 64; cf. Rupprecht Podszun, 'Empfiehlt sich eine stärkere Regulierung von Online-Plattformen und anderen Digitalunternehmen' in Deutscher Juristentag, *Verhandlungen des 73. Deutschen Juristentages* (C.H.Beck 2020) I/F 79f.

[340] Torsten Körber, 'Konzeptionelle Erfassung digitaler Plattformen und adäquate Regulierungsstrategien' [2017] ZUM 93, 94; Schweitzer and others (n 332) 20.

[341] It is also not unusual for the free basic products to be financed by advertising, cf. Schweitzer and others (n 332) 21.

[342] Sholarship references this as the 'chicken or the egg' dilemma of platforms, see ibid 20.

[343] Baums (n 328) 17.

[344] ibid.

[345] European Commission, 'A Digital Single Market Strategy for Europe: (Communication)' COM (2015) 192 final 3.

whether platforms create unprecedented hazards on markets, based on their peculiarities. To reduce the complexity, the authors propose the following distinction: *platform-specific* hazards shall refer to hazards of platforms in their particular field of activity,[346] whereas *platform-typical* hazards shall refer to hazards deriving from platforms in general.[347] This article shall focus hereafter on the platform-typical adverse effects on competition in a data economy.

Competition in the market has various economic functions. It fires up economic life, controls the allocation of means of production and sorts out inefficient enterprises.[348] Competitive economies are, therefore, in no way autopoietic, but may tend to impair themselves over time, with the most efficient market participant outgrowing the others, which in turn removes the competition. This *winner-takes-all* principle has been inherent to the competition process, yet gains new dynamic in digital markets where swift growth (and decay) of companies is not unusual.[349] Competition policy, therefore, must keep the markets open to the extent that the selection function of competition is maintained so that all market positions are threatened at any time.[350]

2.1 Asserting dominance – Internal horizontal growth

The winner-takes-all principle may result in a monopolistic market structure with the monopolist setting the prices, whereas, in an open market, prices result from an equilibrium of supply and demand curves. The network effects on platforms create an environment that supports these monopolistic market structures. The more users a platform accommodates, the more attractive it becomes to new users. When a critical market share is exceeded, the existing – as well as expected – positive network effects render a platform attractive to consumers to such extent that the platform becomes dominant on its market over time. This process is called *tipping*.[351] Assuming there would be a new platform-based product, as soon as the market tips, the dominant or even monopolist platform is crowned, ousting competitors into niches or even

[346] Concerning effects of Uber on passenger services and AirBnB on hotel industry see Vanessa Zoltkowski, 'Airbnb, Uber & Co.: Probleme der Shareconomy' in Marion Albers and Ioannis Katsivelas (eds), *Recht & Netz* (Nomos 2018).

[347] Cf. Alberto de Franceschi, 'Mitteilung und Grünbuch der Europäischen Kommission zu Online Plattformen: eine kritische Würdigung' in Uwe Blaurock, Katharina Erler and Martin Schmidt-Kessel (eds), *Plattformen* (Nomos 2018) 32 and Belgian, Dutch and Luxembourg competition authorities, 'Joint memorandum on challenges faced by competition authorities in a digital world' (10 October 2019) 7 <www.belgiancompetition.be/sites/default/files/content/download/files/bma_acm_cdlcl.joint_memorandum_191002.pdf> accessed 26 August 2020 recognise regulatory challenges that occur with platforms in general.

[348] Rainer Bechtold and Wolfgang Bosch, 'Einführung' in Rainer Bechtold and Wolfgang Bosch (eds), *Gesetz gegen Wettbewerbsbeschränkungen* (9th edn. C.H. Beck 2018) 57; on the role of competition in the modern economy see Wernhard Möschel, 'Competition as a Basic Element of the Social Market Economy' (2001) 2 EBOR 713, 713ff.

[349] Körber (n 340), 97; Chisholm and Jung (n 324), 4; cf. Haucap and Heimeshoff (n 329), 54ff. with examples of dominant companies being threatened by newcomers.

[350] Gerhard Wiedemann, 'Regelungszweck und Rechtsquellen' in Gerhard Wiedemann (ed), *Handbuch des Kartellrechts* (4th edn. C.H. Beck 2020) 2.

[351] Petit (n 315) 19f.

eliminating them. However, size resulting from entrepreneurial success does not yet call for remedies. It is the abuse of a dominant market position that is to be prevented and sanctioned.[352] Platforms do indeed shield their customer base from innovative competitors, thus impairing the process of creative destruction on the competitive market. The key endeavour is to prevent the users from switching to a new platform or *multihoming*, i.e. procuring the same service from two or more platforms to maximise network effects.[353] Naturally, with users becoming increasingly invested in one platform, both sheer convenience and the unwillingness to lose the reputation created on the platform restrain switching. As far as the *locking-in* of users originates from their decision for better service, complaints are unsubstantiated. If, however, switching is disincentivised by artificially increased switching costs, exclusive offers, and limits on the portability of data, regulators shall be alert.[354]

Nota bene, the underlying analysis of monopolistic tendencies is not unchallenged. The economic concept of a monopoly regularly refers to the ability to set prices rather than being subject to the equilibrium prices under competitive conditions. Some scholars, however, fail to recognise such a price-setting capability among FANGs. Secondly, the significance of the term 'tipping' remains controversial. It may be possible to determine a tipping-point in hindsight but determining whether a market is about to or has just tipped seems impossible.[355]

2.2 Expanding dominance – internal vertical growth

Including vertical market relationships in the picture, new threats to competition are revealed. The platform operator has a strong incentive to operate not only the platform itself but also upstream and downstream services. By accumulating data from both consumers and vendors on a platform, particularly lucrative products and services can be identified. Not only is the platform operator then able to cherry-pick products promising the highest margins, self-preferential tactics – such as ranking the private label higher than third party goods – are not far-fetched. Although private labels have been common among food and cosmetics,[356] the comprehensive aggregated data of platforms creates an increased potential of harming competition.[357]

[352] Chisholm and Jung (n 324), 2.
[353] Jay P Choi, 'Tying in two-sided markets with multi-homing' (CESifo Working Paper, No. 2073, Munich 2007) 1.
[354] A comprehensive study on the lock-in in the network economy offer Carl Shapiro and Hal R Varian, *Information rules: a strategic guide to the network economy* (Harvard Business Press 1999).
[355] For a summary of this criticism see Petit (n 315) 19–22.
[356] Jan-Benedict EM Steenkamp and Marnik G Dekimpe, 'The increasing power of store brands: Building loyalty and market share' (1997) 30(6) Long Range Planning 917.
[357] Amazon has been accused of using thid party data to promote private labels, see Nandita Bose and Jeffrey Dastin, 'Amazon uses aggregated seller data to help business, it tells lawmakers' *Reuters* (19 November 2019) <www.reuters.com/article/us-usa-antitrust-amazon-com/amazon-uses-aggregated-seller-data-to-help-business-it-te

Particularly self-preferential treatment is not unlikely considering the dependence of users on rankings. Digital economies tend to create an information overload. As described above, users strive to decrease the cost of search – i.e. transaction costs – by structuring the information, a service offered by search engines, product catalogues, product proposals, and news feeds that prioritise information based on certain parameters, ultimately resulting in a ranking of information. To a certain extent, this filtering is not only innocuous but rather critical for consumers to navigate in the digital markets. For example, when searching for a restaurant without specifying the location, it is helpful to point out restaurants in the vicinity of the searcher. Despite such coarse filtering, the information one is confronted with still needs further processing – digital marketplaces, hence, present in listings or rankings generated by algorithms. The success of retailers on platforms depends on a favourable placement. However, the criteria the rankings are based on, are not always transparent.[358] For example, rating portals tend to base their ranking on an algorithm that weights reviews according to their credibility instead of displaying the mere average.[359]

A manifestation of locking-in are so-called *walled gardens* containing services complementary to the core business of a platform. The company WeChat might be considered a paragon of walled gardens. With services ranging from video telephony to grocery shopping and even financial transactions, WeChat became indispensable for everyday life in China.[360] Other companies increasingly offer similar services. For instance, Facebook recently attempted to launch the payment service WhatsApp Pay in Brazil[361] as well as a dating application[362] – both based on its social network. The payment system has already been suspended because it may have threatened the 'competitive environment, that ensures the functioning of a payment system that's interchangeable, fast, secure, transparent, open and cheap'.[363]

2.3 Expanding dominance – external growth

lls-lawmakers-idUSKBN1XT2N9> accessed 26 August 2020.

[358] Despite the criteria for appearance on Google are well mapped both by official (see 'How Search algorithms work' <www.google.com/search/howsearchworks/algorithms/> accessed 26 August 2020) and inofficial (see Brian Dean, 'Google's 200 Ranking Factors: The Complete List (2020)' (22 January 2020) <https://backlinko.com/google-ranking-factors> accessed 26 August 2020) sources. Nevertheless, the definite prioritisation remains concealed.

[359] Engert (n 317), 332.

[360] Schweitzer and others (n 332) 24f.

[361] Sergio M Lima and Kurt Wagner, 'Brazilian Authorities Suspend WhatsApp Payments' (24 June 2020) <www.bloomberg.com/news/articles/2020-06-23/brazil-s-central-bank-suspends-whatsapp-payments> accessed 26 August 2020.

[362] Facebook, 'It's Facebook Official, Dating Is Here' (5 September 2019) <https://about.fb.com/news/2019/09/facebook-dating/> accessed 26 August 2020.

[363] Central Bank of Brazil, 'Nova solução de pagamentos depende de prévia autorização do BC' (23 June 2020) <www.bcb.gov.br/detalhenoticia/17108/nota> accessed 30 August 2020; Lima and Wagner (n 361).

Not only internal growth is initially unobjectionable under competition law. Also, external growth, i.e. by mergers and acquisitions, is assumed to increase the efficiency of the merging firms in terms of economies of scale.[364] This positive effect flips, when the market concentration reaches a point where the functioning of competition might be impaired, i.e. when the merged firm becomes dominant or even monopolistic. The distinction between external and internal growth is vital from the perspective of possible regulation: While internal growth can (and should) not be contained but only sanctioned in case of abusive behaviour, external growth is regularly subject to review by authorities.[365] Structural merger control can thus also prevent market abuse.[366]

Moreover, *killer acquisitions* impair the competitiveness of markets. In this case, 'an incumbent firm may acquire an innovative target and terminate development of the target's innovations to preempt future competition.'[367] Killer acquisitions per se are not new,[368] yet certainly gained importance due to the possibilities of rapid growth in the digital economy. However, platforms with aggregated data and knowledge might be able to identify and acquire promising companies at an early stage and thus slip through the turnover-based thresholds of regulators for merger-control, as young start-ups often have only low turnover.[369] One attempt to tackle killer acquisitions is to make the approval of mergers dependent on official forecasts about the potential competitive relationship of the acquiring and the acquired company.[370] This solution is hardly convincing from the perspective of legal certainty. Also, it ignores possible changes in the business model of young companies. A retrospective revision of a merger, furthermore, seems implausible not only for reasons of protection of legitimate expectations.[371] Technologies, know-how, and personnel are absorbed by the acquiring company and cannot simply be removed. Notably, in the case of killer acquisitions competition law may conflict with industrial policy. Founding companies with the aim of exiting to an established company is a common strategy of founders.[372] Focusing solely on maintaining competition could, on the one hand, hamper

[364] Jacques Crémer, Yves-Alexandre de Montjoye and Heike Schweitzer, *Competition Policy for the digital era* (2019) 110.
[365] Stefan Thomas, 'Vorbemerkung zu § 35' in Ulrich Immenga and Ernst-Joachim Mestmäcker (eds), *Wettbewerbsrecht: Band 3. Fusionskontrolle.* Kommentar zum Europäischen und Deutschen Kartellrecht (6th edn. C.H. Beck 2020) 1–3.
[366] Rupprecht Podszun and Christian Kersting, 'Eine Wettbewerbsordnung für das digitale Zeitalter' [2019] ZRP 34, 35.
[367] Colleen Cunningham, Florian Ederer and Song Ma, 'Killer Acquisitions' [2018] SSRN Journal, 1 accessed 26 August 2020.
[368] ibid concerns killer acquisitions in the pharmaceutical sector.
[369] Podszun and Kersting (n 366), 35f.
[370] Schweitzer and others (n 332) 152.
[371] Podszun and Kersting (n 366), 35f.
[372] ibid 36.

innovation and, on the other hand, disadvantage the European internal market in the global competition, particularly since start-ups are mobile due to the lack of fixed infrastructure and can quickly relocate their companies to alternative sites.[373]

3. The importance of ex-ante regulation

When it comes to the regulation of competition, it is common to distinguish between two approaches. While ex-post measures are punitive in that they focus on sanctioning an infringement,[374] ex-ante measures oblige firms to a certain behaviour. The term ex-ante regulation can contain a broad range of instruments; for instance, in the telecommunication sector access to and interconnection of networks with price caps on access fees,[375] enabling roaming between networks,[376] and an obligation to net neutrality[377]. Ex-ante measures have often been implemented after unsuccessfully relying solely on punitive ex-post tools. Notably, ex-post sanctions also radiate an ex-ante effect through the threat of sanctions on a behaviour. However, where this preventive effect of sanctions fails to produce a satisfactory outcome, ex-ante tools should be considered.[378]

Proponents of such tools argue that a punitive approach alone may not be able to cope with the dynamics of platform economies. As platforms act as gatekeepers to the ecosystems around them, thus locking in users and at least attempting to create walled gardens, an after-the-fact approach may not be able to restore a competitive field.[379] Additionally, tedious court proceedings will be avoided as confirming an infringement[380] will not be necessary, and the non-punitive

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[373] A comprehensive study concerning migration of US start-ups offers In H I Lee, 'Intra- versus Inter-state Relocation Strategies of U.S. Startups and their Performance' (2018) 2018(1) Proceedings 12162.

[374] Article 7-9 Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, OJ 2003 L 1/1.

[375] Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive), OJ 2002 L 108/7.

[376] Regulation (EU) No 531/2012 of the European Parliament and of the Council of 13 June 2012 on roaming on public mobile communications networks within the Union, OJ 2012 L 172/10.

[377] Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union, OJ 2015 L 310/1.

[378] Such trial-error approach was applied in the creation of the internal market in electricity. Several EU Member States opted for a regulated third party access, with the exception of Germany relying upon a negotiated third party access, see Günter Knieps and Gert Brunekreeft (eds), *Zwischen Regulierung und Wettbewerb: Netzsektoren in Deutschland* (2.th edn, Physica-Verlag 2003) 146; as this however has proven inefficient, the European legislator established a regulated third party access across the single market, see Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC, OJ 2003 L 176/37, rec 2.

[379] Belgian, Dutch and Luxembourg competition authorities (n 347) 5f.

[380] Thomas Tombal, 'Economic Dependence and Data Access' [2019] IIC 70, 80ff.

nature will increase compliance by creating a dialogue with dominant firms.[381]

Broadening the regulating bodies' range of instruments does not remain unchallenged. Some phenomena described in this paper are not per se negative, and so forecasting their adverse effects seems impossible. Consider the example of walled gardens: While open systems indeed fuel competition in many ways,[382] closed systems generate efficiencies as 'they ensure compatibility between components[,] avoid freeriding[,] allow user coordination, and avoid the drawbacks of standardisation.'[383] Whether the benefits for users outweigh the threats to competition must be decided on a case to case basis. This criticism, however, can not apply to fundamental regulatory decisions such as enshrining net neutrality but only to ex-ante measures that grant competition authorities discretionary power, possibly causing over-regulation.[384]

On the other hand, merely monetary sanctions also seem dissatisfactory. Platforms were observed to sacrifice profits until they establish dominance on a market. Companies generating profits from other business fields can cross-subsidise the development of dominance, but it is not improbable that investors would offer external funding if establishing dominance seems possible.[385] As firms focus on growth rather than profitability, monetary sanctions on abusing practices might be mere costs of business, undermining the preventive function of punitive ex-post regulation. This finding supports implementing ex-ante regulation, at least concerning fundamental decisions that do not grant discretionary powers to regulating agencies.

4. Regulation of data access de lege lata

A recent example of such regulation is the facilitation of access to data gathered by platforms to third parties. In the digital economy, data has become a key driver of value.[386] In a variety of threats posed upon the open competitive markets by platforms, data plays a major role.

4.1 Types of data

The term *data* has been used without further elaboration.[387] Two approaches to categorising data

[381] Belgian, Dutch and Luxembourg competition authorities (n 347) 6.
[382] Competition and Markets Authority and Autorité de la concurrence, 'The economics of open and closed systems' (16 December 2004) 31 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/387718/The_economics_of_open_and_closed_systems.pdf> accessed 26 August 2020.
[383] ibid.
[384] Chisholm and Jung (n 324), 6.
[385] Lina Khan, 'Amazon's Antitrust Paradoxon' (2017) 126 Yale Law J 710, 747f.
[386] Heike Schweitzer, 'Datenzugang in der Datenökonomie: Eckpfeiler einer neuen Informationsordnung' [2019] GRUR 569.
[387] Notably, the regulatory framework on the protection of personal data is not explored in this article.

are offered. Firstly, the genesis of data differs. *Volunteered* data is deliberately left behind when using a service. This includes contacts, reviews, expressions of preference, such as reactions on social networks or product reviews. For merchants, these can be addresses, employees and product variety. *Observed* data is – in contrast – usually disclosed unconsciously by user behaviour. The user's location, as well as tracking movements on websites, are typical examples of consumer data. In the case of merchants, information about sales, rate of returns and the conversion rate can be gathered by the platform. *Inferred* data is obtained by exploiting the aforementioned data in relation to individual users, creating user profiles that allow advertising to be tailored to the individual's interest. With platforms generating income through interaction with their ads, as shown above, inferred data is highly valuable.[388]

Secondly, there are four ways of the subsequent use of data. All can apply to volunteered, observed, and inferred data: *Personalised individual-level data* describes data linked to a particular user and is needed to create interoperability of services, e.g. to migrate settings between applications, as well as to offer customised services. *Anonymous individual-level data* is mainly used to train neural networks relying on comprehensive data sets without the need for reference to individuals. Particularly large samples, for instance, might be of importance to companies developing artificial intelligence. *Aggregated data* differs from the anonymous use of individual-level data in that the original individual data sets are aggregated irreversibly as is the case in official statistics. *Contextual data* would be data not rooted in individual-level data such as weather information or mapping data.[389]

4.2 Existing Policies for Data Sharing

4.2.1 Public Sector Information

Although this paper has predominantly addressed data at the disposal of private firms, public sector information is also crucial for businesses, as contextual data such as meteorological data but also aggregated data provided by official statistics can be exploited by companies. The EU has recently pushed forward by introducing the Open Data Directive[390] widening the scope of information shared publicly. Particularly, real-time sharing of dynamic, i.e. rapidly obsolete, data is enshrined. While new business models may arise, and existing businesses may use the data to

[388] World Economic Forum, 'Personal Data: The Emergence of a New Asset Class' (2011) <www3.weforum.org/docs/WEF_ITTC_PersonalDataNewAsset_Report_2011.pdf> accessed 26 August 2020 as cited by Crémer, Montjoye and Schweitzer (n 364) 24.

[389] Crémer, Montjoye and Schweitzer (n 364) 25–27.

[390] Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information, OJ 2019 L 172/56.

expand their services, competition between private and public data collection may arise.[391] The framework is open for experimental models by allowing certain entities to charge fees exceeding the marginal costs, however, with the fees being collected under the *FRAND*[392] principle. This first take on obligatory data sharing, although in the public sector, may become a petri dish for a regulation of the private sector.

4.2.2 P2B and essential facilities doctrine

Privileged access to large amounts of data can give platform operators an exceptional degree of market power. To facilitate efficient competition, it can be necessary to share existing data with competitors. In the following, a short summary of existing tools for data access in the private sector will be given – outlining the P2B Regulation and the essential facilities doctrine.

Firstly, Art. 9 of the P2B Regulation[393] seems to address the need of competitors to access data pools under the headline 'Access to data'. The provision, however, is misleading as it does not grant competitors or users any right to access data whatsoever. Section I merely stipulates that online intermediaries' services disclose in their GTCs whether and to what extent they grant commercial platform users access to customer data or other data generated on the platform. Section II then further specifies these mere transparency requirements. In the authors' view, this transparency provision can merely be an important first step. [394]

Moreover, the debate on the conditions under which competitors can gain access to data sets controlled by other companies has so far focused on the *essential facilities doctrine* (EFD).[395] The EFD describes a special case of abusive refusal by a dominant company to contract with competitors in a neighbouring market.[396] The remedy for the infringement in such cases is the award of an access right.[397] Considering data, scholarship mostly argues in favour of the EFD applying.[398] However, many unanswered questions remain.[399] Even though the EFD has already

[391] Podszun (n 339) I/F 96–97.

[392] Fair, reasonable, non-discriminatory, see further Gustavo Ghidini and Giovanni Trabucco, 'Calculating FRAND Licensing Fees: A Proposal of Basic Pro-competitive Criteria' in Ashish Bharadwaj, Vishwas H Devaiah and Indranath Gupta (eds), *Complications and Quandaries in the ICT Sector* (Springer Singapore 2018).

[393] Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services, OJ 2019 L 186/57.

[394] Following the assessment of Christoph Busch, 'Mehr Fairness und Transparenz in der Plattformökonomie?: Die neue P2B-Verordnung im Überblick' [2019] GRUR 788, 794.

[395] Schweitzer and others (n 332) 162.

[396] ibid.

[397] ibid.

[398] ibid 163; on the question 'Are data an essential facility?' see Catherine E Tucker, 'Digital Data as an Essential Facility: Control' <www.competitionpolicyinternational.com/digital-data-as-an-essential-facility-control/> accessed 26 August 2020.

[399] For example an argument can be made that the key driver for data meeting the criteria of the EFD, is whether the data is protected under copyright or privacy law, Cf. Tucker (n 85).

been extended to include cases of licensing intellectual property rights,[400] it is unclear why it has not been applied in recent competition enforcement by the EU.[401] Insofar the authors stress that there are promising proposals for an appropriate application of the EFD on data[402] and that the legislator is called upon to build a framework on this doctrine. Considering the lack of action, the authors propose another direction, taking the insights of the importance of ex-ante regulation into account.

Such enforcement could be irrespective of the abuse of dominant position; the rationale being that competition policy will accept market dominance (if not abused) but can actively promote competition regardless.[403]

5. Access to data de lege ferenda

5.1 Private Sector Information

When discussing access to data, the question of data ownership arises. Attempts to solve this conundrum were of little use in regulatory science,[404] so the parties distinguished are firms with exclusive access to data – without questioning whether they are the owners – and firms interested in the data that however lack access to it.[405] Some ideas from this discourse, however, seem helpful. Firstly, data are non-rival goods that can be exploited without restrictions. Secondly, the balance between the interest of the firm to maintain exclusive access to data with the general interest of a competitive market must be found. The firm's interest is mainly touched upon if trade secrets are impaired, yet the term should be used restrictively, particularly considering ranking criteria.[406] Thirdly, enabling access to data must not lead to disincentivising data collection by private companies[407] , and thus proper remuneration such as the FRAND-rules should be put in place.

With respect to sharing of and third-party access to data, recently the implementation of sector-specific rather than general solutions was proposed to incorporate peculiarities of the individual sectors. However, as already established, certain platform-typical dangers are closely

[400] See for example Case C-418/01 *IMS Health* [2004] ECR I-05039 para 52.
[401] Inge Graef, *Rethinking the Essential Facilities Doctrine for the EU Digital Economy* (2019) 23; in Germany a debate is going on regarding a proposal to include new provisions on data as an essential facility, cf. Podszun (n 339) I/F 98.
[402] Above all see in depth Inge Graef, 'EU competition law, data protection and online platforms' 208ff; Graef, (n 88).
[403] See comparable Lichtblau and Bertenrath (n 326) 84.
[404] Cf. Lothar Determann, 'Gegen Eigentumsrechte an Daten: Warum Gedanken und andere Informationen frei sind und es bleiben sollen' [2018] ZD 503.
[405] Cf. Podszun (n 339); Schweitzer and others (n 332).
[406] Josef Drexl and others, 'Data Ownership and Access to Data - Position Statement of the Max Planck Institute for Innovation and Competition of 16 August 2016 on the Current European Debate' [2016] SSRN Journal, 2.
[407] Tombal (n 67), 73.

tied to data, hence allowing the consideration of a 'platform' as a general business model. Also, sector-specific regulation contains the risk to be created in close cooperation with dominant companies – who might not favour widening the competitive process.[408]

5.2 Indicating the need for data exchange

Two indicators can be used to determine whether a market needs regulation: the distribution of market power and information asymmetries.

5.2.1 Distribution of market power

As competition law is tasked with maintaining creative destruction on free markets, it seems evident to examine the distribution of market power as an indication of whether the firms shall be obliged to share data with competitors. Particularly newcomers should be granted access to pertinent data to be able to bridge disadvantages from lacking network effects, without being obliged to share data themselves.[409] A preventive right to access certain data would also bear a procedural advantage for newcomers as it would avoid long-drawn court proceedings needed to identify abuse of dominance by withholding data.

Duties to share data should be imposed when a dominant firm emerges. Without a dominant firm sharing data among competitors seems unnecessary. In praxis, however, a firm may dominate a primary market but hold a weak position in a niche and even be a newcomer in other markets simultaneously.[410] This can be particularly observed with vertically integrated platforms. Yet, treating them as newcomers seems inappropriate, as even with little market share, they can be expected to have a data-backbone from the primary market on which they are dominant. A solution for determining a threshold for regulatory action in such cases[411] is offered in a draft amendment to the German Competition Act (GWB),[412] proposing a novel legal category of a firm of cross-market significance. Applying this new category to competition law, undertakings of cross-market significance could be obliged to share data with competitors. Notably, this metric is also applicable to regulate competition between upstream and downstream services around a

[408] Podszun (n 26) I/F 98.
[409] ibid.
[410] On market definition in the digital economy cf. Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015] SSRN Journal accessed 29 August 2020.
[411] See also Torsten Mäger, 'Die 10. GWB-Novelle: Eine Plattform gegen Big Tech?' [2020] NZKart 101.
[412] German Federal Ministry of Economic Affairs and Energy, 'Entwurf eines Zehnten Gesetzes zur Änderung des Gesetzes gegen Wettbewerbsbeschränkungen für ein fokussiertes, proaktives und digitales Wettbewerbsrecht 4.0 (GWB-Digitalisierungsgesetz)' (24 January 2020) 9 <www.bmwi.de/Redaktion/DE/Downloads/G/gwb-digitalisierungsgesetz-referentenentwurf.pdf?__blob=publicationFile&v=10> accessed 28 August 2020.

singular platform.

5.2.2 Information asymmetries

A different typology to determine the need for regulation is offered by Schweitzer et al. from the perspective of established rather than emerging ecosystems.[413]

Firstly, in a singular ecosystem, i.e. revolving around one platform, asymmetries can be expected between the operator of the platform and other stakeholders offering upstream and downstream services. On market platforms, transactions are observed in real-time aggregating data both from consumers and vendors. If the platform shared data with the vendors, they could compare their services to the benchmark of the competitors, which would ultimately create more efficiency in the market.[414]

Additionally, parity between vendors and vertically integrated platforms would be established, as both would be able to base their decisions upon the same information. An argument could be made that with full transparency between a vertically-integrated platform and vendors, cherry-picking as described above would vanish.[415] Although marketplaces represent an illustrative example, this also holds true for other platforms. For instance, the provider of a smart home platform might be able to aggregate more comprehensive datasets than producers of single components, who in turn could use the data to improve their components. Furthermore, transparency within a closed ecosystem could tackle the challenges of rankings. If ranking criteria and the frequency of ranking products on a certain position are made fully transparent, allegations of self-preferential treatment could easily be verified.

Secondly, firms not participating in an ecosystem may need access to data that is exclusively controlled by another company.[416] This corresponds with the occurrence of the lock-in effect described above. A full data exchange would eliminate high switching costs for users. Especially in cases where inferred data is more important for the offered service than merely observed data, the issue is sensitive as these cases will mostly address data exchange between competitors.[417] An example is the portability of playlists between streaming services. Playlists created by the users themselves are volunteered and do not require any effort by the firm. Individually customised playlists with music suggestions are – in contrast – created by algorithms. While the portability of

[413] Schweitzer and others (n 332) 161.
[414] Crémer, Montjoye and Schweitzer (n 364) 68.
[415] However a high degree of transparency might increase collusion, see Ralf Dewenter, Ulrich Heimeshoff and Hendrik Lüth, 'The impact of the market transparency unit for fuels on gasoline prices in Germany' (2017) 24(5) Appl Econ Lett 302; this could be however prevented by data trustees facilitating exchanges and denying requests in case of collusive behaviour, see Schweitzer (n 387), 7.
[416] Schweitzer and others (n 332) 161.
[417] Cf. Crémer, Montjoye and Schweitzer (n 364) 81.

the first playlist would fuel competition without significant harm, the latter case requires a more balanced approach with regard to compensation – ideally under the FRAND-scheme – as well as the distribution of market power as laid out before.

6. Conclusion

The paper assessed the nature of platforms as well as their potential harming of competitive markets. It argued in favour of preventive ex-ante regulation, after examining the status quo. Main improvements de lege ferenda are suggested, with the premise that competition law aims to keep markets open, i.e. to keep dominant market positions threatened. There is a need for a framework for the exchange of and access to certain data that are invaluable particularly to newcomers. A firm's obligation to exchange data should be based on the state of the market and on information asymmetries. The first approach shall allow newcomers to penetrate the market swiftly and threaten the dominant firm. The latter approach distinguishes between asymmetries between firms competing on a platform and two competing platforms. While firms competing on a platform should be granted access to data-aggregates, especially in the case of vertical integration of the platform operator, the case for data sharing with competitors needs an approach that balances regulatory aims with the interest of the firm. As the territory of data access regulation has been trodden warily to date, the approaches presented do not necessarily rival other proposals but rather contribute to the regulatory sandbox and call for further discourse about a nuanced approach. Indeed, vivid regulation by EU and national legislators can be expected, concerning both access to data and other competition challenges that were en passant referenced in this paper. Special regard should be given to further advancing the essential facilities doctrine and the original ex-ante instrument – merger control – and its advancements in tackling killer acquisitions.[418]

[418] With competition law in digital markets being a topic of fertile discussions, legislative action since the submission of this assessment has been inevitable. The following provisions were thus not yet taken into consideration while being nonetheless noteworthy for the overall debate. In particular, the tenth amendment to the German Act Against Restraints of Competition, with sections 19, 19a and 20 is now addressing an easier access to data, correlating to the measures proposed in this article and should, therefore, be the subject of further analysis. Adding a supra-national perspective, the European Commission has proposed the Data Governance Act (COM/2020/767 final) defining a framework for data-sharing by private and public entities. Apart from the access to data, proposals for the Digital Markets Act (COM/2020/842 final) and the Digital Services Act (COM/2020/825 final) might provide rapid changes in the field of platform regulation and the authors consequently encourage the reader to monitor these developments closely.

MONOPOLISATION IN BIG DATA AND AI MARKETS IN RELATION TO FUNDAMENTAL RIGHTS AND DEMOCRACY

Julian Kessler[419]

Abstract

The use of big data and artificial intelligence is characteristic for business models in the digital economy. Observing these markets, one notices the high concentration of power in the hands of only a few, but very powerful companies. Be it the market for online selling platforms, search engines or social media platforms, they are all characterised by monopolies or oligopolies. These might exhibit potential threats not only to effective competition, but also to fundamental rights and democratic processes. The present article first examines what characteristics lead to such a centralised market structure. An analysis of these structures from the perspective of competition law will be conducted. More essentially, the article sheds light on the relation between centralised market structures and the right to privacy, discrimination and democracy. The article concludes with recommendations for a more holistic and considerate assessment of centralised markets in the field of big data and artificial intelligence, bearing in mind the importance of fundamental rights and democratic values.

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1. Introduction

Technology is changing the world. Most aspects in life are impacted by technology in at least some way. Ever since mankind has started using technology, more complex algorithms have been developed, ranging from simple codes in the beginning of the era of technology, to ever more sophisticated programmes. Nowadays, there are machines that can not only perform specific tasks with much greater accuracy than any human being ever could, but that can also simulate the human mind raising discussions whether the code has developed its own mind.

With the digital revolution came the massive collection of data. There are currently more than twenty-two billion devices connected to the internet and the number is expected to almost double in the next ten years.[420] Already in the year 2016, so much data was produced as in the entire history of humankind through 2015.[421] Every minute, hundreds of thousands of Google search queries and Facebook posts are produced. Behaviour on the internet and mobility data from smart phones are stored without pause. It is estimated that the amount of stored data will soon double every 12 hours.[422] The huge amount of data is often referred to as 'Big Data'. Traditionally, big data is characterised by the '4 Vs', volume, variety, velocity and value, although there is no common agreement on how to define the term.[423] Some have argued that a particular feature of big data is the complexity of the data, making it impossible to scan vast amounts of data and retrieve any useful information with conventional tools.[424] This is where machine learning and artificial intelligence becomes relevant. Self-learning systems are algorithms that are able to change their own algorithms and thereby get better in pattern recognition. With artificial intelligence, big data sets can be explored and analysed in a much more efficient way. Artificial intelligence is especially useful in quick data-based decisions. For example, nowadays, around 70% of all financial transactions are performed by algorithms.[425] There are also a lot of funds for artificial intelligence; the European Union funds for the research and innovation for AI has risen

[420] H Tankovska, 'Number of Connected Devices Worldwide 2030' (*Statista*, 2019) <https://www.statista.com/statistics/802690/worldwide-connected-devices-by-access-technology/> accessed 1 December 2020.

[421] Dirk Helbing (ed), *Towards Digital Enlightenment: Essays on the Dark and Light Sides of the Digital Revolution* (Springer International Publishing 2019) 74 <http://link.springer.com/10.1007/978-3-319-90869-4> accessed 28 November 2020.

[422] ibid.

[423] H Hu and others, 'Toward Scalable Systems for Big Data Analytics: A Technology Tutorial' (2014) 2 IEEE Access 652, 654.

[424] Patrick Howell O'Neill, James Temple and Charlotte Jee, 'The Big Data Conundrum: How to Define It?' (*MIT Technology Review*, 2013) <https://www.technologyreview.com/2013/10/03/82990/the-big-data-conundrum-how-to-define-it/> accessed 30 November 2020.

[425] Helbing (n 421) 72.

to €1.5 billion (a 70% increase compared to the previous period).[426]

Artificial intelligence needs big data bases to unfold its capabilities. It is therefore mostly used in those enterprises that have huge amounts of data available ready to be analysed by artificial intelligence. In turn, artificial intelligence fosters the growth of these companies. Considering the markets where big data is relevant, we see that these are mainly characterised by monopolies or oligopolies. Such centralised market structures may potentially have negative effects on competition and, eventually, on the welfare and rights of consumers. Therefore, artificial intelligence may have indirect effects on human rights and democracy through its characteristic of concentrating power in the market. Whereas other threats that AI poses to human rights have been investigated relatively broadly, this specific relationship between big data, artificial intelligence and monopolistic concentration of power has not been paid thorough attention, which is why the present article's purpose is to shed light on these dependencies. The article explores how and why the aggregation of data, combined with the subsequent use of artificial intelligence to manage and analyse these data, lead to tendencies to monopolistic market structures, which in turn might have specific effects on human rights and democracy. The relation is indirect, and its discussion therefore necessarily needs to cover several different fields, this at the cost of a comprehensive analysis of each field. For this, the interested reader shall be referred to more subject-specific articles.

In the present article, first, I will show why monopolisation is highly likely to occur in markets of the digital economy. As monopolies are discussed in competition law, I will briefly show what concerns might arise in this field, of course without being able to elaborate thoroughly. After that, further implications by these market structures are presented, with regard to competition law on the one side, and on the other side how potential threats to democracy and/or human rights might appear. I will conclude with a brief discussion on what measures might mitigate the problematic effects of monopolistic structures in the big data industry. Importantly, this thesis does not judge the monopolisation dynamics or any firm behaviour as good or bad. The explicit aim is to descriptively reveal processes of monopolisation in the context of big data and its potential consequences. Whether actual market concentration has positive or negative effects depends on the concrete circumstances.

2. Monopolisation in the digital economy

[426] 'Excellence and Trust in Artificial Intelligence' (*European Commission - European Commission*, 28 November 2020) <https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/excellence-trust-artificial-intelligence_en> accessed 28 November 2020.

2.1 General

Traditionally, market power and whether an undertaking is monopolistic, is assessed in terms of market share. For the digital economy, however, some other aspects might play a role, such as the degree to which a given undertaking can actually, potentially or hypothetically collect and diffuse personal information.[427] Accumulating massive data is a decisive indicator of power. Not only the number of customers, but also the amount of customer data plays a role. It cannot be neglected that power in the digital economy is extraordinarily concentrated in the hands of only few internet giants. To understand the reasons for this is important in order to be able to shape the future relationship between humans and technology and to also see the implications for democracy.[428]

There are several characteristics of the digital economy that explain the tendency to monopolisation. Mostly, certain dynamics allow big companies to grow even bigger whereas small companies are left over. Among the most prominent are the implications by a company being a platform economy, scale effects, several feedback loops, market entry barriers, mergers and expansion into new markets as well as the importance of those services in different democratic processes. In the following sections, I will address the characteristics one by one, although, of course, many of the characteristics overlap and have even stronger effects when combined.

2.2 Platforms economy

Many companies in the digital economy are platform providers. Instead of offering physical products, a platform provides the infrastructure to mediate social and economic interactions online.[429] Therefore, many digital platforms are two-sided, which means that two or more user groups benefit from interacting via it.[430] For example, search engines are used both by individuals to access information on the internet and by advertisers to access viewers.[431] Digital marketplaces are used both by sellers and buyers. More individuals and companies can therefore benefit from

[427] Peter Hustinx, 'Privacy and Competitiveness in the Age of Big Data: The Interplay between Data Protection, Competition Law and Consumer Protection in the Digital Economy' (European Data Protection Supervisor 2014) para 60 <https://edps.europa.eu/sites/edp/files/publication/14-03-26_competitition_law_big_data_en.pdf> accessed 30 November 2020.

[428] Paul Nemitz, 'Constitutional Democracy and Technology in the Age of Artificial Intelligence' (2018) 376 Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences 20180089, 2 <https://royalsocietypublishing.org/doi/10.1098/rsta.2018.0089> accessed 28 November 2020.

[429] Martin Kenney and John Zysman, 'The Rise of the Platform Economy' [2016] Issues in Science and Technology 61, 65.

[430] Michael Baye and others, 'The Digital Economy' (2012) DAF/COMP(2012)22 5 f.

[431] ibid 5.

the platform. Platforms enable users to connect with each other, which gives rise to network effects (see below). Characteristically, network effects are a definition criterion of a two-sided market.[432]

In fact, it has been argued that dominance - or even monopoly - can be the virtually inevitable outcome of success of a platform.[433] It is essential to notice that the platform administrator has the power to decide on what terms users should be allowed to perform what transactions. This refers not only to the individual users, but also to the companies that need the platform for offering their own products. This undoubtedly brings a lot of power, even though platform owners claim they only function as an intermediary.[434] Interestingly, many platforms provide their services free of charge. Their income is generated mainly through paid advertising by third parties on the platforms.

2.3 Scale effects:

Digital platforms and other services provided online benefit significantly from scale effects and network effects. These are perhaps the most important effects that lead to a monopolisation of companies like Google, baidu, Yandex, or yahoo.[435] Scale effects mean that with a higher number of output - or users in the case of platforms - average costs per user to provide the service shrink. Hence, with each additional member, the firm benefits as there are almost no variable costs. This characteristic becomes salient when considering the effect of one additional user joining a social media platform, for example. In the beginning, fix costs are high, but for each new user, the only additional cost is storing the data of the new user which is almost none. Therefore, effectively, large companies benefit from scale effects the most.

2.4 Feedback loops

Other characteristics that facilitate growth of big companies and eventually result in a monopolistic market are feedback loops, also referred to as 'snowball effects' or self-reinforcement dynamics. Providers that already dispose of significant resources are likely to attract further resources which in turn can be invested and result in further growth. Depending on what 'resources' is a placeholder for, user feedback loop, data feedback loop, monetisation feedback loop and employee feedback loop can be distinguished.

[432] Michael Vogelsang, 'Dynamics of Two-Sided Internet Markets' (2010) 7 International Economics and Economic Policy 129 <https://EconPapers.repec.org/RePEc:kap:iecepo:v:7:y:2010:i:1:p:129-145>.
[433] Baye and others (n 430) 5 f.
[434] Kenney and Zysman (n 429) 62.
[435] Justus Haucap and Ulrich Heimeshoff, 'Google, Facebook, Amazon, EBay: Is the Internet Driving Competition or Market Monopolization?' (2014) 11 International Economics and Economic Policy 49, 8 <http://link.springer.com/10.1007/s10368-013-0247-6> accessed 28 November 2020.

2.4.1 User feedback loop

Network effects can be seen as a specific type of feedback loop: one additional user enhances the quality of the platform by adding more possible interactions and connections, which in turn attracts new users. That is, each user creates a positive externality for other users by enlarging the scope of the service.[436] With more users in the network, the service of the network gets better. These positive external effects of an additional user are not internalized in any market transaction, the improved service does not get more expensive, thus facilitating further growth.[437] For potential users of a digital platform, it is rational to choose the one platform between competing providers that has the most users already, because the utility that a user receives from a particular service directly increases with an increasing number of other users.[438] Followingly, there is a tendency toward standardisation, which means everyone eventually uses the same platform. As soon as one provider gains an initial edge, new users will prefer to join that platform. This leads to a phenomenon called 'tipping', which is the tendency of one system to pull away from its rivals in popularity, eventually leading to a monopolistic situation.[439]

Similarly, the 'bundling' of users and of information enables bundlers to extract more value through using synergies, thereby outbidding smaller competitors.[440] Scale and network effects play a significant role in leading to monopolistic competition as opposed to perfect competition.[441]

It is evident that strong network effects might lead to highly concentrated market structures, but these are not necessarily disadvantageous. Instead, economically speaking, strong network effects tend to make these concentrated market structures efficient.[442] Overall welfare, as economists would call it, is higher if all users are using the same platform as everyone can benefit from a higher number of other users.[443] Whether network effects are ultimately beneficial or detrimental to competition often depends on other factors, like the actual number of users, market shares and

[436] Howard A Shelanski, 'Information, Innovation, and Competition Policy for the Internet' (2012) 161 University of Pennsylvania Law Review 1663, 1682 <https://heinonline.org/HOL/P?h=hein.journals/pnlr161&i=1695> accessed 30 November 2020.

[437] Michael L Katz and Carl Shapiro, 'Systems Competition and Network Effects' (1994) 8 Journal of Economic Perspectives 93, 112.

[438] Haucap and Heimeshoff (n 435) 3; Michael L Katz and Carl Shapiro, 'Network Externalities, Competition, and Compatibility' (1985) 75 The American Economic Review 424 <https://www.jstor.org/stable/1814809> accessed 28 November 2020.

[439] Katz and Shapiro (n 437) 105 f.

[440] Yannis Bakos and Erik Brynjolfsson, 'Bundling and Competition on the Internet' (2000) 19 Marketing Science 63, 63 <https://www.jstor.org/stable/193259> accessed 30 November 2020.

[441] Katz and Shapiro (n 437) 112.

[442] Haucap and Heimeshoff (n 435) 5.

[443] Bruno Jullien, 'Two-Sided Markets and Electronic Intermediaries' (2005) 51 CESifo Economic Studies 233; Bernard Caillaud and Bruno Jullien, 'Chicken & Egg: Competition among Intermediation Service Providers' (2003) 34 The RAND Journal of Economics 309 <https://www.jstor.org/stable/1593720> accessed 28 November 2020.

the level of fixed costs, and of course the intentions of the firm.[444]

Not only are individual persons users of platforms, but also companies that offer their products and services on them. For example, such a platform can be the operating system of a smartphone where third parties present and offer their applications. The utility of mobile network devices grows with the number of compatible apps. As developers cannot easily move apps from one platform to another, when deciding for which operating system they should develop their applications, they will develop for the more popular.[445] This platform grows by the additional service, which in turn attracts more users. It cannot be denied that these network effects make it very difficult to challenge the market positions of firms like Google and Facebook.[446]

2.4.2 Data feedback loop

Besides the user feedback loop, the data feedback loop is of particular importance in the data economy. It refers to the massive collection of data that reinforces itself. In a technical sense, one additional piece of data exhibits decreasing returns, meaning that the more data a firm has, the less valuable is any further additional piece of data[447]: 'prediction accuracy theoretically increases in the square root of the number of observations, suggesting a concave relationship between the amount of data and its value in improving predictions'.[448] But if one adopts the probably more adequate dynamic point of view, a slight lead in quality (and quantity) of data might allow a company to collect even more and better data and the reinforcement mechanism starts. Hence, even though there may be decreasing returns to scale in a technical sense, returns to scale in the economic value of data may be increasing.[449]

More data enables the provider to develop better services, which in turn attracts more customers and more data.[450] As Shelanski points out, the data feedback loop actually has a threefold effect: besides the ability of firms to enhance their services when more customer data is available, data can serve as a strategic advantage enabling a strategic orientation along the needs of the

[444] Bruno Lasserre and Andreas Mundt, 'Competition Law and Big Data: The Enforcers' View' (2017) 4 Rivista Italiana di Antitrust / Italian Antitrust Review 87, 95 <https://doi.org/10.12870/iar-12607> accessed 29 November 2020.

[445] Shelanski (n 436) 1683.

[446] Wolfgang Kerber, 'Digital Markets, Data, and Privacy: Competition Law, Consumer Law and Data Protection' (2016) 11 Journal of Intellectual Property Law & Practice 856, 860.

[447] Hal Varian, 'Artificial Intelligence, Economics, and Industrial Organization' in Ajay Agrawal, Joshua Gans and Avi Goldfarb, *The Economics of Artificial Intelligence: An Agenda* (University of Chicago Press 2018) <http://www.nber.org/papers/w24839>.

[448] Ajay Agrawal, Joshua Gans and Avi Goldfarb, 'Economic Policy for Artificial Intelligence' (2019) 19 Innovation Policy and the Economy 139, 20–21.

[449] ibid.

[450] Lasserre and Mundt (n 444) 91; D Geradin, 'What Should EU Competition Policy Do to Address the Concerns Raised by the Digital Platforms' Market Power?' [2018] Comparative Political Economy: Regulation eJournal 10, 3 <https://ec.europa.eu/competition/information/digitisation_2018/contributions/damien_geradin.pdf>.

customers, and data can also serve as a commodity when sold to third parties.[451] All three dynamics foster further growth.

The data feedback loop is especially salient in the market of search engines. Users choose a search machine over another if the quality of the search results is high. This is the case when the search provider can access more data and adapt the display of search results and search advertisements accordingly.[452] The feedback loop starts when data is collected portraying what search results are relevant to (being clicked by) the users. The learning effect facilitates a higher quality of the search results, which in turn attracts more users, which in turn brings in more data.[453] For example, due to its significant market share, Google also has the best access to (also historical) search data, which is needed to refine the engines' search algorithms.[454] Additionally, with more collected data, a platform can better target its advertisements and monetise its data.[455]

One might argue that access to data is not the decisive competitive advantage but rather the capability of original innovation and development of the best algorithms. However, the more and diverse data structures available, with respect to variables or features, the more sophisticated and potentially accurate the model can be, and the more patterns can be discovered by artificial intelligence. Thus, access to the best data is in fact a decisive advantage. 'The more data collected, the smarter, faster and more accurate the algorithms will be.'[456] Effectively, as the other self-reinforcement dynamics, the data feedback loop leads to a marginalization of smaller competitors.[457]

2.4.3 Monetisation feedback loop

The third feedback loop to be explored in this article is the monetisation feedback loop. This self-reinforcement dynamic is not particular to the digital economy but to all innovative enterprises. Higher revenues of companies in a strong market position can be reinvested in Research & Development, potentially leading to competitive advantages through new algorithms and new functionalities, thereby strengthening the already strong position.[458] Due to the particular

[451] Shelanski (n 436) 1679.
[452] Daniel Zimmer and others, 'Competition Policy: The Challenge of Digital Markets' (Monopolkommission 2015) Special Report by the Monopolies Commission pursuant to section 44(1)(4) of the Act Against Restraints on Competition 68 para S28 <https://www.monopolkommission.de/images/PDF/SG/s68_fulltext_eng.pdf> accessed 30 November 2020.
[453] ibid.
[454] Haucap and Heimeshoff (n 435) 9.
[455] Geradin (n 450) 3.
[456] Karl Manheim and Lyric Kaplan, 'Artificial Intelligence: Risks to Privacy and Democracy' (2019) 21 The Yale Journal of Law & Technology 106, 122.
[457] Lasserre and Mundt (n 444) 91.
[458] ibid; Nemitz (n 428).

importance of innovation of services in the digital economy, this feedback loop might be especially strong, resulting in these markets often being characterized by (temporary) monopolies.[459]

A similar monetisation feedback loop appears when it comes to litigation. Stronger companies with more financial resources can afford higher investments to defend their position in legal proceedings.[460]

2.4.4 Employee feedback loop

Furthermore, on the market for talents, bigger companies are often perceived as more attractive employers.[461] The 'war for talents' selects the fittest employees who will invest their capabilities into the most attractive firm's success, thus resulting in a further growth and an even stronger employer brand and attractiveness.

2.5 Market barriers

Partly as an individual factor, partly as a result of the characteristics of the platform economy, scale effects and feedback loops, market barriers consolidate the strong market position of big companies. What is particular for two-sided markets and digital platforms, namely a cost structure with a relatively high proportion of fixed costs and relatively low variable costs[462], implies market entry barriers for potential competitors.[463] The establishment of a new platform requires high investments compared to the low costs that come along with the acquisition of new users once a platform is established. Existing scale and network effects of widely used companies marginalise the success of new competitors.

Entry barriers are even higher considering that such services are offered for free. In the absence of a positive price that can be undercut, entry may be made even more difficult.[464]

Even though it has been argued that switching costs are low, which means that users of one platform can simply switch to another, or that multi-homing is possible, which means that customers can use multiple platforms,[465] there are limits to these assertions. First, while creating a new profile on a new platform might be simple, switching costs are indeed high if an existing

[459] Katz and Shapiro (n 437) 112.
[460] Ann Rudinow Sætnan, Ingrid Schneider and Nicola Green, *The Politics and Policies of Big Data: Big Data, Big Brother?* (Routledge 2018) ch 1.
[461] Manheim and Kaplan (n 456) 174.
[462] Jullien (n 443).
[463] Haucap and Heimeshoff (n 435) 6.
[464] Joseph L Bower and Clayton M Christensen, 'Disruptive Technologies: Catching the Wave' [1995] Harvard Business Review 43; Geradin (n 450) 2.
[465] D Daniel Sokol and Roisin Comerford, 'Antitrust and Regulating Big Data' (2015) 23 George Mason Law Review 1129, 1136 <https://heinonline.org/HOL/P?h=hein.journals/gmlr23&i=1150> accessed 30 November 2020.

network or a good reputation earned on the first platform has to be given up or gained once more in the second platform. Examples might include virtual friendships on social networking platforms or positive ratings of one's profile in carsharing applications. Secondly, while multi-homing theoretically sounds like a feasible option, practically, the use of two social networking platforms that are on the same market or of two different carsharing applications for the same purpose is certainly not convenient.

To this adds the fact that access to data might be a market barrier, because potential competitors lack valuable market insights.[466] Obligating established companies to share their data with potential competitors is problematic in terms of business secret and data protection and cannot be the solution, unless the data is considered an 'essential facility'.[467] Paradoxically, the monopolist could, therefore, try to 'shield' itself from sharing data by claiming compliance with data protection rules.[468]

Furthermore, many of the Internet giants nowadays operate not only on one market, but on several. The synergies of bundling all data might discourage single-product competitors from entering the market, although the entrants might have a superior cost structure or quality.[469] Even if some entrant with disruptive innovative ideas does enter a market, its expansion will likely be controlled by super-platforms, either through exclusionary practices or mergers and acquisitions.[470]

2.6 Mergers & Acquisitions and new markets

There is an additional characteristic of big companies in the digital economy that facilitates their strengthening of their market position or even their expansion into other markets. As already mentioned above, big firms have the financial resources to buy innovative small start-ups.[471] This widens their market scope but also stabilises their monopolistic position as competitors are made part of the undertaking. Some big firms might even have the resources to purchase established firms, consolidating their position of power even more.

For example, Facebook eliminated competition and assembled vast depositories of personal data by acquiring sixty-seven competitors, Amazon has acquired ninety-one, and Google two hundred

[466] Lasserre and Mundt (n 444) 91.
[467] Inge Graef, 'Data as Essential Facility' (KU Leuven 2016).
[468] Hustinx (n 427) para 68.
[469] Bakos and Brynjolfsson (n 440) 63.
[470] Ariel Ezrachi and Maurice E Stucke, 'Virtual Competition' (2016) 7 Journal of European Competition Law & Practice 585 <https://academic.oup.com/jeclap/article/7/9/585/2547746> accessed 28 November 2020.
[471] Nemitz (n 428).

and fourteen.[472] By these acquisitions, the big companies strengthened their market position.
But not only are mergers and acquisitions a form of adding new markets to a firm's scope, an information bundler might also profitably enter a new market making use of the information already gathered through the initial business and eventually drive out incumbent firms.[473] Especially platform providers might offer additional services that will be shown very prominently to the users of their platforms, one may think of the services Google offers today compared to its initial business as a search engine. The entry on adjacent markets can thus be fairly beneficial and affordable for the already established big players, reinforcing their dominant position.[474]

2.7 Relevance in democratic processes

Finally, the big service providers in the digital economy play an essential role in several democratic processes. The public discourse has significantly shifted to social media platforms.[475] Not only the public discourse but also elections are heavily influenced by big companies in this field.[476] When voters search for information via search engines, targeted advertising by political parties can have significant effects. Political campaigning without using social media channels of big companies has become almost inconceivable for political parties. The use of these platforms by persons of public interest emphasises their importance and dominance. Additionally, those companies that can analyse voters' preferences through big data and artificial intelligence will become more worthy to those who wish to use these insights, for example for purposes of targeted advertising.

2.8 Summary

All the aforementioned characteristics of big firms in the digital economy foster market concentration and, eventually, monopolisation. The markets in the digital economy will inevitably be dominated by one or only a few players. Because of being a platform economy, because of scale effects and feedback loops, market entry barriers, mergers and expansion into new markets, as well as because of the importance of those platforms in different democratic processes, 'dominance - or even monopoly - can be the virtually inevitable outcome'.[477]

3. Competition law aspects

[472] Manheim and Kaplan (n 456) 172.
[473] Bakos and Brynjolfsson (n 440) 63.
[474] Lasserre and Mundt (n 444) 91.
[475] Nemitz (n 428) 4.
[476] ibid.
[477] Baye and others (n 430) 5 f.

3.1 'There are no concerns!'

Monopolies and oligopolies are central issues in recent discussions around competition law. In 2015, there were only few articles on the topic of big data and antitrust law,[478] nowadays, big data is one of the central topics in competition policy discussions.[479] Therefore, it is necessary that the present article includes a chapter that points towards the legal aspects of the power centralisation in markets of the digital economy from this perspective.

There are two sides to the controversial debate about the appropriate scope of competition enforcement in digital markets.[480] Literature review reveals that some researchers do not see monopolisation as a problematic issue. For one, they see no evidence for 'tipping' (the tendency of one system to pull away from its rivals in popularity), and they see no 'feedback loops'.[481] Also, they claim, barriers to entry in those markets are low, and that there cannot be a real monopoly on data, because data is ubiquitous, inexpensive, easy to collect and furthermore non-exclusive (data can be possessed by various persons), non-rivalrous (data does not become less when possessed), and short-lived.[482] Furthermore, they argue, switching costs are low and multi-homing is fairly common. There would also be no case law that sustains the assumption of illegitimate accumulation of power.[483] According to this view, any consolidation of power is due to the firms' innovative and successful development of algorithms that deserve the dominant and also economically efficient market structure. No interventions in the structure of the market are deemed justified, rather they increase subjectivity into antitrust analysis, opportunities for strategic gaming by firms, and pose a threat to innovation and consumer welfare.[484]

In this realm of argumentation, the 'error cost argument' has been prominent in the literature which asserts that competition enforcement is likely to make costly errors.[485] According to this argument, overenforcement of competition would be at the cost of slowing down innovation,

[478] Sokol and Comerford (n 465) 1130.
[479] Norbert Maier, 'Closeness of Substitution for "Big Data" in Merger Control' (2019) 10 Journal of European Competition Law & Practice 246, 246.
[480] Baye and others (n 430) 6.
[481] Andres V Lerner, 'The Role of "Big Data" in Online Platform Competition' [2014] SSRN Electronic Journal <http://www.ssrn.com/abstract=2482780> accessed 28 November 2020.
[482] Sokol and Comerford (n 465) 1136.
[483] ibid 1161.
[484] ibid; Maureen K Ohlhausen and Alexander P Okuliar, 'Competition, Consumer Protection, and the Right [Approach] to Privacy' (2015) 80 Antitrust Law Journal 121, 151 <https://www.jstor.org/stable/26411522> accessed 30 November 2020.
[485] Geoffrey A Manne and Joshua D Wright, 'Google and the Limits of Antitrust: The Case against the Case against Google' (2011) 34 Harvard Journal of Law & Public Policy 171 <https://heinonline.org/HOL/P?h=hein.journals/hjlpp34&i=177> accessed 30 November 2020; Shelanski (n 436) 1665 ff.

whereas underenforcement would be less problematic.[486] The theorists argue that, particularly in technologically dynamic markets, this error-cost critique may be well founded.[487]

Also, among authorities, there has been a consensus that existing antitrust laws and enforcement powers should suffice to address any concerns, shifting the focus on national antitrust enforcers.[488]

What shall be differentiated is monopolisation and abusive behaviour. As elaborated in the previous section, the characteristics that lead to market concentration like feedback loops are indeed to be taken seriously and tendencies to monopolisation cannot reasonably be neglected. However, whether concentrated markets are problematic, is an issue of every firm's policy, because acting abusively can indeed be a problem in terms of competition law.

3.2 'There are concerns!'

Opponents argue that there are actually three main concerns around the data economy[489]: firstly, data can be a factor contributing to market power. This tendency was already explored in the previous section. Secondly, data can increase market transparency among suppliers and thereby facilitate collusion. Thirdly, data can be an instrument for certain anticompetitive conducts. These are competition law concerns, especially brought about by big data and artificial intelligence.[490] Competition policy's aim is to ensure fair competition, quality of products and consumer welfare. It shall ensure that citizens are the ones who get the benefits of a data-driven economy, and it shall minimise its risks.[491] Regarding the legal background, at the European level, articles 101-106 Treaty on the Functioning of the European Union (TFEU) prohibit agreements between companies which would prevent or distort competition and they prohibit abuse of a dominant position. The Council Regulation on the control of concentrations between undertakings focuses on illegit mergers and acquisitions that might have negative effects on competition. The

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[486] Shelanski (n 436) 1671.

[487] Klaus Mathis and Avishalom Tor, *New Developments in Competition Law and Economics* (Springer International Publishing 2019) 260.

[488] Deborah Feinstein, 'Big Data in a Competition Environment' (2015) 5 Competition Policy International 2 <https://ideas.repec.org/a/cpi/atchrn/5.2.2015i=18428.html> accessed 30 November 2020; Jones Day, 'European Antitrust Enforcers Move on Holders of Big Data' (*Kluwer Competition Law Blog*, 26 May 2016) <http://competitionlawblog.kluwercompetitionlaw.com/2016/05/26/european-antitrust-enforcers-move-on-holders-of-big-data/> accessed 30 November 2020.

[489] Lasserre and Mundt (n 444) 90 ff.

[490] Shuya Hayashi, Kunlin Wu and Benjawan Tangsatapornpan, 'Competition Policy and the Development of Big Data and Artificial Intelligence', *The Roles of Innovation in Competition Law Analysis* (Edward Elgar Publishing 2018) <https://www.elgaronline.com/view/edcoll/9781788972437/9781788972437.00016.xml> accessed 28 November 2020.

[491] Maurice Stucke and Allen Grunes, 'Introduction: Big Data and Competition Policy', *Big Data and Competition Policy* (Oxford University Press (2016) 2016) 11 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2849074> accessed 30 November 2020.

European Commission is required to investigate cases of suspected infringement of these principles of competition. The main practical legal concerns in the digital economy arise around collusion, problematic mergers and the abuse of a dominant position. In any case, the European Commission, of course, has only limited power to decide over companies based in the United States of America. Moreover, its counterparts in the U.S. - the Federal Trade Commission (FTC) and the Department of Justice - have been far less aggressive in enforcing competition law.[492]

In a big data and artificial intelligence context, collusive behaviour might occur for example when algorithms learn to set prices in oligopolistic competition taking into account the behaviour of other firms and their algorithms. These dynamics might lead to tacit collusion, given the algorithms' ability to recognise patterns in the other firms' behaviour and to quickly react to it and change prices.[493]

How to define market dominance in the digital economy and how to draw inferences about important competition law aspects is especially challenging. Traditionally, market power was identified with prices and output[494], where innovation has been only of secondary interest.[495] More recently, authors have argued that the determination of market and competition should be based on a more dynamic view, taking into consideration non-price factors such as information and innovation.[496] Once dominant, in order to maintain functioning competition, it is important the firm does not illegally abuse its position. Being in a dominant market position is not sufficient to bring about legal consequences. The key challenge is therefore to distinguish anticompetitive practices that will harm consumer welfare from practices which, although they may be commercially aggressive, stimulate competition and innovation.[497]

The main competition law concerns regard the potential reduction of transparency that a dominant market position can bring with it, market failures due to information asymmetry as well as behavioural biases.[498] In a monopolistic market, the quality of products might suffer due to a lack of competition. Furthermore, dominant undertakings can and do displace traditional law with 'terms of service' rules that act as separate legal systems,[499] and they may be more influential

[492] Manheim and Kaplan (n 456) 171.
[493] Agrawal, Gans and Goldfarb (n 30) 21; Ezrachi and Stucke (n 52); Lasserre and Mundt (n 26) 92.
[494] Shelanski (n 436) 1668 f.
[495] Richard J Gilbert and Willard K Tom, 'Is Innovation King at the Antitrust Agencies - The Intellectual Property Guidelines Five Years Later Articles and Replies' (2001) 69 Antitrust Law Journal 43, 44 <https://heinonline.org/HOL/P?h=hein.journals/antil69&i=51> accessed 30 November 2020.
[496] Shelanski (n 436).
[497] Geradin (n 450) 2.
[498] Kerber (n 28) 859.
[499] Manheim and Kaplan (n 456) 175.

in shaping public discourse than any one state's law.[500] Because of these potential negative consequences, some have even demanded that breaking up monopolies would be a desirable government policy.[501]

It is essential that these considerations are kept in mind when dealing with monopolistic market structures.

4. Concerns regarding privacy, discrimination and democracy

While the previous section focussed on competition law and the potential implications for competition, this section will discuss issues where monopolies may have negative effects on a functioning democracy and how they may infringe human rights.

4.1 Privacy

In any discussion of data and fundamental rights, the right to data protection and privacy have to be addressed. In 2016, the General Data Protection Regulation (GDPR) was adopted by the European Union, laying down several important obligations of the 'controller' of personal data and rights of the 'data subject'. This regulation is effective, but privacy concerns still persist, especially in concentrated markets. Monopolies in the digital economy can pose threats to privacy and data protection as users often have to agree to the terms if they want to use the service. Weak competition in these markets leads to the provision of insufficiently diverse privacy options for fulfilling the different privacy preferences of users. Often, there is only one big firm, perhaps a few others, that provide a needed service. It is hardly disputable that market concentration is economically efficient considering the network effects. Nevertheless, it can be problematic that a user has no real choice and has to agree to let data of his be stored. If there were more competition, different providers might differentiate by adopting different privacy rules. The characteristics of markets in the digital economy, however, lead to a concentration of power. Persons could use alternatives, at the cost of using a worse platform that provides less network. The same line of argument is applicable to transparency in handling personal data. These qualities of the service are lower due to a lack of competition.

4.2 Discrimination

Big data and artificial intelligence might have discriminatory effects. Monopolist firms can freely

[500] Andrew Keane Woods, 'Litigating Data Sovereignty' (2018) 128 Yale Law Journal 328, 356–357 <https://heinonline.org/HOL/P?h=hein.journals/ylr128&i=356> accessed 28 November 2020.

[501] Gary S Becker, 'Competition and Democracy' (1958) 1 The Journal of Law & Economics 105, 105 <https://www.jstor.org/stable/724885> accessed 28 November 2020.

choose what algorithms they use and still maintain the large number of users because of all the above-mentioned characteristics that promote monopolies. An increasing amount of literature points toward algorithmic bias, the unfair privileging of one arbitrary group of persons over another. If discriminatory algorithms are financially more promising, the monopolist might adopt them without any significant loss of users. It is important to note that, first, private companies in the US are not bound by the constitution and therefore do not have to comply with equality standards laid down in the constitution ('state action doctrine'), and second, in the US only intentional discrimination is unconstitutional ('requirement of purpose').[502] Besides, the opacity of artificial intelligence 'black box' decision-making precludes the outputs from being tested against constitutional norms.[503] It is therefore a big challenge to prove unconstitutional discrimination by artificial intelligence.

Another concern is personalised pricing. Private companies might adjust prices depending on the behaviour and preferences they have stored and analysed for each individual user. The legality of this practice is questionable.[504] But once again, if the undertaking is a monopolist, users have practically no alternative than to agree to the terms and conditions foreseen by the company.

4.3 Democracy

In 2017, the 'Democracy Index' by the Economist reported that half of the world's countries scored lower than the previous year. The principal factor for the demotion of the United States was 'erosion of confidence in government and public institutions'. This growth in distrust was largely caused by voter manipulation by Cambridge Analytica in the 2016 presidential election.[505] A massive amount of user data was used for individually targeted advertising. Big data and artificial intelligence played an important role in analysing user behaviour. Conclusions, which advertisements could have a specific desired effect, could be drawn. This voter manipulation would not have been possible if not so many users were using the one monopolist digital platform. As outlined above, these markets have a natural tendency to monopolisation. Monopolist markets imply an increased risk of lower quality when it comes to data protection standards because no competition forces firms to raise standards. This abuse of data does not only have negative effects on the rights of an individual person but can also seriously affect

[502] Yavar Bathaee, 'The Artificial Intelligence Black Box and the Failure of Intent and Causation' (2017) 31 Harvard Journal of Law & Technology (Harvard JOLT) 889, 889, 991 <https://heinonline.org/HOL/P?h=hein.journals/hjlt31&i=907> accessed 28 November 2020.
[503] Manheim and Kaplan (n 456) 111, 155.
[504] Helbing (n 421) 78.
[505] Manheim and Kaplan (n 456) 106.

democracy. The possibility of big firms to analyse big data and influence elections deprives us of our ability to think for ourselves and critically engage in democratic processes, thus undermining democracy.[506]

The influence on the presidential election is just one example how big data and artificial intelligence can pose a threat to democracy. As previously mentioned, the democratic discourse to a large extent takes place on social media. On these platforms, artificial intelligence recognises viral content and promotes it even more. There are fully automatized bots that produce attention-grabbing content, also 'fake news' that grab more attention, being thus further promoted. Algorithms reinforce what people pay attention to. Artificial intelligences might thus play an important role in the political discourse without being identified as such, which would amount to a distortion of discourse, untenable in democracy.[507]

Some of these mechanisms would not be as influential if there were no monopoly but fair competition. Monopolist undertakings have no incentive to care about privacy, non-discrimination or democratic processes. In traditional competitive markets, these deficiencies in quality would be erased by competitors entering the market with products and services of higher quality. In the digital economy, however, several tendencies lead to an accumulation of power resulting in monopolies or oligopolies. If market power is detrimentally abused, the rise of tech platforms can be a serious threat not only to competition, but to fundamental rights and to democracy.[508]

5. Conclusion

The present article has shed light on the dynamics of markets in the context of big data and artificial intelligence and how monopolisation in such markets might pose a threat to certain fundamental rights and democratic processes. Several characteristics of the digital economy exhibit a tendency of centralisation. Due to scale effects, self-reinforcement mechanisms like network effects, raised market entry barriers and mergers and acquisition policies, dominant undertakings can further strengthen their position. A dominant position alone does not necessarily imply negative consequences, but with the lack of strong competitors there is also a lack of incentive to adopt high quality standards, be it with regard to the service itself, to the firm's data policy or to its terms and conditions of use. Without binding regulations, a

[506] John Danaher, 'Philosophical Disquisitions: Rule by Algorithm? Big Data and the Threat of Algocracy' (2014) <https://philosophicaldisquisitions.blogspot.com/2014/01/rule-by-algorithm-big-data-and-threat.html> accessed 28 November 2020.
[507] Nemitz (n 428) 11.
[508] Tim Wu, *The Curse of Bigness. Antitrust in the New Guilded Age.* (Columbia Global Reports 2018) 16, 55.

monopolist can arbitrarily choose the conditions of its service. This can potentially facilitate dynamics that infringe fundamental rights and democracy.

It is therefore essential, for policy makers as well as for other authorities, to be aware of the close interconnection between big data, artificial intelligence and competition law, keeping in mind the values of fundamental rights and democracy at all times. Specifically, competition law policymakers and enforcers should be aware of the characteristics of a data-driven economy and the value of data. Close cooperation should be an imperative. [509] When analysing monopolistic markets, besides ensuring innovation, also the customers' wish for variety, quality and other non-price benefits, including innovation and privacy protection have to be considered.[510] It is important to assess how conduct of monopolists as well as their terms and conditions of service might have effects on fundamental rights and democratic processes.[511]

Next to these guidelines, data protection policies should explicitly focus on the analysis of data by artificial intelligence. Furthermore, specific rules should penalise disadvantageous terms and conditions of service with respect to analyses and perhaps decisions taken and actions performed by artificial intelligence. Effective enforcement strategies and complaint systems have to be assured.

Most importantly, humans need to be aware of the potential of technology. Education, starting with young children, has to focus on creativity and a critical use of technology. The recognition of the importance of democratic values and a public democratic discourse shall be fostered in every stage of life. Only then can democracy and human rights, despite all challenges, prevail.

[509] Hustinx (n 427) para 68.
[510] ibid 30.
[511] Shelanski (n 436) 1668, 1686.

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