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## COVID-19: AI SUPPORTS THE FIGHT, BUT REDUCES RIGHTS AND FREEDOMS

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### 1. Premise: a broader vision to approach COVID-19 emergency

The World Health Organization Director General<sup>1</sup> affirmed that the COVID-19 pandemic «is not just a public health crisis», but it touches every sector and person in a World, in a continuous and borderless interactions between people. COVID-19-virus is the global “*Black Swan*” of 2020 (*i.e.*, unexpected event)<sup>2</sup>, that led to a combination of the most widespread restrictions and use of Artificial Intelligence and Information and Communication Technologies (ICT)<sup>3</sup>, on daily life experienced in peacetime in modern Europe, with profound implications for the enjoyment of fundamental rights and freedoms<sup>4</sup>.

«In theoretical jurisprudence, however, it has been stated that we are in a “full-blown constitutional state of emergency and we are experiencing the suspension of most of the

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<sup>1</sup> See WHO Director-General’s opening remarks at the media briefing on COVID-19 of 11 March 2020.

<sup>2</sup> See N. N. TALEB, *The Black Swan: The Impact of the Highly Improbable*, New York, 2010. This theory was developed by referring to Juvenal’s Satire, and it focuses on an event impossible to occur or so rare that it was not possible to predict.

<sup>3</sup> As, *inter alia*, these are related to privacy and data protection laws.

<sup>4</sup> THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic in the EU - fundamental rights implications*, Luxembourg, 2020

constitutional guarantees connected to individual rights of freedom”. On the other hand, the finding of the serious health emergency in which we find ourselves could lead us to mitigate both of these judgments»<sup>5</sup>.

In order to achieve to an analysis of the relationship between such a complex situation and the implications with human rights and freedoms, a different basic methodological approach is therefore necessary: broader and from different perspectives<sup>6</sup>. The WHO Director-General's words<sup>7</sup> seems to reflect it: indeed, «different countries are in different scenarios, requiring a tailored response. It's not about containment or mitigation - which is a false dichotomy. It's about both. All countries must take a comprehensive blended strategy for controlling their epidemics and pushing this deadly virus back. Countries that continue finding and testing cases and tracing their contacts not only protect their own people, they can also affect what happens in other countries and globally». The starting point is the observation of the functional cooperation between human and Artificial Intelligence (AI), as a support to the human decision-making process<sup>8</sup>: such analysis aims to assess whether fundamental rights and freedoms have been respected, and the related strategies adopted by governments<sup>9</sup> (to struggle the spread of the virus) are legitimate. Indeed, in the time of a pandemic emergency, to achieve the goal of restoring normalcy, it is very important that each one contributes in different ways: even technology (*i.e.*, Artificial Intelligence, Machine Learning, Internet of Things, etc.) should, although

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<sup>5</sup> G. TROPEA, *Il Covid-19, lo Stato di diritto, la pietas di Enea*, in *Federalismi.it*, 2020

<sup>6</sup> This approach should consider all the interactions of the “actors” involved and the effects on the economy and society. In order to better clarify the methodology, it is appropriate to refer to some theories, although related to other fields. For instance, a possible one is the “Holistic Complexity Approach” in which the different observation perspective is given by a dual point of view: holistic, since according to from ancient greek definition, the whole is more than merely the sum of its parts, the consequent approach means taking care of something totally in all aspects; complexity, since its theory concerns the hidden order of systems, with the aim of maximizing their potential, maintaining the delicate balance between “order” (laws and rules) and “chaos” (unexpected events), through the ability to predict and guarantee the continuity of activities, adopting a resilient strategy, both first to react and then to restore a “normal” condition. See M. D'AGOSTINO PANEBIANCO, *L'Holistic Complexity Approach*, in *Statistica & Società*, 2019, p. 3 ss. This latter is coherent with Bauman's G-local theory, where in a time of global non-quantifiable interactions, he suggests to «think global, act locally», to reduce the negative effects deriving from Globalization, to get its benefits in enhancing the person. See, Z. BAUMAN, *On glocalization: Or globalization for some, localization for some others*, in *Thesis Eleven*, 1998, p. 37 ss. Furthermore, crisis management theories suggest that a concentration of efforts and a focus on priorities are required: interpret the facts, their evolutions and involvements, giving high added values to the emerging energies, looking for potential future opportunities arising.

<sup>7</sup> WHO Director-General's opening remarks at the media briefing on COVID-19 of March 9th and 11th 2020.

<sup>8</sup> It is worth emphasizing that the main reference of these object and this research field began with H. A. SIMON, *Administrative behavior; a study of decision-making processes in administrative organization*, New York, 1947. The author was a pioneer in the field of artificial intelligence, creating the Logic Theory Machine (1956) and the General Problem Solver (1957) programs: so that, he was awarded the Nobel Prize in economics in 1978 «for his research into the decision-making process [...]. For example, his interest in simplifying and understanding complex decision-making situations led him at an early stage to the problem of breaking down complex equation systems. His studies of “causal order” in such systems have been of particular importance». See Nobel Prize, press release of 16 October 1978.

<sup>9</sup> Some examples relating to various countries will be brought, although mainly referring to the European and Italian context.

some concerns about its implications in violating privacy arouse. Thus, the legal reference framework is mainly that of the *protection of personal data*<sup>10</sup>.

On the one hand, this latter legislation, *de facto*, has always had an international dimension: on the other hand, one of the main aspects of its evolution concerns the relationship between the availability of an increasingly impressive “technological arsenal”, and the great possibilities that derive from it.

Indeed, «we must ask ourselves whether everything that is technically possible, albeit ethically lawful, politically and socially acceptable, legally permissible [or if some forms of use fall within the will of large-scale control, *nda*], as the democratic future is at stake more and more around the social and political capacity to transform information and communication technologies into technologies of freedom, and not of control»<sup>11</sup>. Furthermore, it is worth highlighting that that public health responses to COVID-19 are constantly changing in light of changing circumstances<sup>12</sup>.

In a such complex context, in a holistic-vision, besides the main concern (which is certainly health), the rights and freedoms of citizens should be considered of equal importance.

## 2. Introduction - a pandemic-emergency: the three fronts of the war COVID-19

The World Health Organisation, on 11 March 2020, declared that the COVID-19 outbreak had reached the level of a global pandemic<sup>13</sup> which is classifiable as a “public health emergency of international concern”<sup>14</sup>: an extraordinary event that potentially constitutes a public-health-risk, also for other States through the international spread of disease, which may require a coordinated international response. According to the WHO, pandemics<sup>15</sup> are recurring events, although are unpredictable in terms of time and geographical occurrence<sup>16</sup>: this perspective gives to them, both the nature of extraordinariness and ordinariness, which is relevant in defining whether the consequent restraint measures (to contain and stop the virus spread) are lawful, especially referring to

<sup>10</sup> Which is even more applicable to Artificial Intelligence, as it is based on the processing of large quantities of data and information (Big Data), using both algorithmic and Machine Learning logics.

<sup>11</sup> S. RODOTÀ, *Relazione per l'anno 1997, discorso del Presidente*, Italian Data Protection Authority, 30 April 1998.

<sup>12</sup> See THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.

<sup>13</sup> The WHO Director-General, at the media briefing on COVID-19 of 9 March 2020, had a relatively optimistic stance, affirming that «it would be the first pandemic in history that could be controlled», since early and decisive actions can slow down the virus and prevent infections, then provided some guidelines to the Countries (involved and not) to stop transmission and prevent the virus-spread: finding, testing, treating and isolating individual cases, and following their contacts.

<sup>14</sup> Pursuant to article 1 of the International Health Regulations (IHR) of the World Health Organization. Furthermore, a “large-scale-emergency” can also be defined, classifying it along various “dimensions”, such as number of casualties, size of geographical area affected, duration, and cause, and as argued by G.I. HAWE, G. COATES, D. T. WILSON, R.S. CROUCH, *Agent-based simulation for large-scale emergency response: a survey of usage and implementation*, in *ACM computing surveys*, 2012, p.8 ss. «when considering the dimensions relevant to classifying a generic emergency as large-scale, the large may apply to either the size of geographical area affected, or to the impact on the individuals therein, or both».

<sup>15</sup> WORLD HEALTH ORGANIZATION, *Pandemic influenza preparedness and response - WHO guidance document*, Geneva, 2009

<sup>16</sup> *i.e.*, it is adequate to refer to the above mentioned “Black Swan” theory.

the *post-pandemic* impact (*i.e.*, emergency has ended). It must therefore be highlighted that, in general during such an emergency, a “*dual regime*” is set up at the same time, and referring to the specific context of the processing of personal data, these can be described as follows: an “*ordinary*” one, which concerns the generality of data processing carried out in relation to activities *not* directly related to the management of the health emergency; an “*extraordinary*” one, which concerns the processing of data directly connected with emergency management, in which it is possible to apply some derogations provided for by the law, and made applicable by a *specific* legislative act. The aspect of the contextual coexistence of these, in fact, requires some reflections, on the one hand, on the different ways of applying laws and norms, referring to specific areas, contexts and circumstances; on the other hand, on the impact that the aforementioned derogations can have on people.

It is worth noting that in a pandemic situation (and therefore, globalised<sup>17</sup>), one of the main issues regards the “*limitation*” or “*erosion*” of domestic sovereignty of individual States, in matters of public health. As a matter of facts, the removal of legal and commercial barriers, not only does not constrain the spread of the virus, but rather increase the trans-national mutual vulnerability, imposing - *de facto* - the use of instruments offered by international law. It should also be emphasised that in the light of the global scenario, the debate on the erosion of public health sovereignty has focused on the changed management model<sup>18</sup> of international health emergencies, and consequently the reference legal framework<sup>19</sup>. Anyways, Countries maintain their internal health sovereignty<sup>20</sup> as a constitutional right, within the powers of the specialized United Nations health agency: the World Health Organization<sup>21</sup>. As it emerges from article 2 of WHO Constitution<sup>22</sup> its functions shall be «to act as the directing and co-ordinating authority on international health work». In order to better address the relationship between globalization and global health governance, it is adequate to focus the debate on the role of leadership and co-ordination of the WHO to strengthen Countries in their health policy capacity at the global level, and not only in a domestic perspective. A complete vision cannot ignore the consideration of the impact in other fields different than the health one, such as economy, human dignity and rights, fundamental freedoms of persons<sup>23</sup>. In this context, the International Health Regulations (IHR)<sup>24</sup> plays certainly a main role, representing both, on the one hand, a “*shared governance*” mechanism for transnational health emergencies;

<sup>17</sup> According to the theorists of global public health correctly state that “*diseases know no borders*”.

<sup>18</sup> Mainly due to the fact that the governance of public health of our century is characterized by the involvement of a plurality of national and international, public and private actors.

<sup>19</sup> See S. NEGRI, *La tutela della salute pubblica internazionale tra governance globale, «sovrànità sanitaria» e diritti fondamentali*, in P. BARGIACCHI, R. CADIN, C. R. CARCHIDI (a cura di), *Studi in onore di Augusto Sinagra*, Roma, 2013, p.335 ss., who also recalls the reconstruction of the broad doctrinal debate that has developed since Jean Bodin’s work on “*limited sovereignty*” and on the erosion of sovereignty.

<sup>20</sup> *i.e.*, the exercise of sovereign powers of the State aimed at the protection and promotion of health and the provision of health services.

<sup>21</sup> See I. KICKBUSCH, E. DE LEEUW, *Global public health: revisiting healthy public policy at the global level*, in *Health Promotion International*, (1999), p. 285 ss.

<sup>22</sup> Adopted in New York on 22 July 1946

<sup>23</sup> I. KICKBUSCH, E. DE LEEUW, *ivi*.

<sup>24</sup> Which were adopted firstly by the Health Assembly in 1969, and after an extensive preliminary work on the revision. The current third edition was approved by the 58th World Health Organization Assembly, in May 23rd, 2005, and its purpose and scope are «to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade».

and, on the other one, the main legal instrument for managing and combating pandemics. In fact, it is the reference framework «inclusive and dynamic, and above all attentive to the needs of balancing the imperative of the protection of public health, respect for the sovereignty of States and the protection of fundamental rights»<sup>25</sup>, on which the whole International community bases its global health security system. Pursuant to article 22 of the Constitution of the WHO «regulations adopted pursuant to article 21<sup>26</sup> shall come into force for all Members after due notice has been given of their adoption by the Health Assembly except for such Members as may notify the Director General of rejection or reservations within the period stated in the notice», effectively constituting an agreement under international law<sup>27</sup>. In the light of what above argued, the prevailing doctrine considers IHR as the model that favours the overcoming of a strictly a “State-centric” vision of international governance of health emergencies, in favour of a “global governance system”<sup>28</sup>.

In particular, the International Health Regulations, in case of extraordinary circumstances (such as a pandemic) provides that the WHO Director General can declare a “*public health emergency of international concern*”, allowing involved or potentially involved Countries to adopt strict measures to contain and slow down the virus spread and infection<sup>29</sup>. Thus, in the context of a health emergency, an *extra-ordinary* condition is therefore established: in order to deal with the various emergencies, the individual States (albeit within the framework of a global coordination, for the reasons indicated above) temporarily may derogate to ordinary laws, but still respecting fundamental rights and freedoms<sup>30</sup>. Indeed, at article 3.1 of the Regulation it is provided that all the measures shall

<sup>25</sup> S. NEGRI, *La tutela della salute*, cit.

<sup>26</sup> i.e., concerning both the authority of the Assembly and its scopes, such as (a) sanitary and quarantine requirements and other procedures designed to prevent the international spread of disease; (b) nomenclatures with respect to diseases, causes of death and public health practices; (c) standards with respect to diagnostic procedures for international use; (d) standards with respect to the safety, purity and potency of biological, pharmaceutical and similar products moving in international commerce; (e) advertising and labelling of biological, pharmaceutical and similar products moving in international commerce.

<sup>27</sup> See D. FIDLER, *From International Sanitary Conventions to Global Health Security: The New International Health Regulations*, in *Chinese Journal of International Law*, 2005, p. 325 ss.

<sup>28</sup> S. NEGRI, *ivi*.

<sup>29</sup> J. QUINN, V. FRIAS-MARTINEZ, L. SUBRAMANIAN, *Computational Sustainability and Artificial Intelligence in the Developing World*, in *AI Magazine*, 2014, p. 36 ss.

<sup>30</sup> For example, the Italian Government on January 31, 2020 declared a “state of emergency” (in accordance with art. 24 of the Constitution), subsequently enacting the decree n.6/2020, converted into Law n.13/2020, which authorized the President of the Council of Ministers to take urgent and extraordinary measures to contain the spread of COVID-19 (followed by numerous decrees both of the President of the Council of Ministers and of other ministers). As written by B. CARAVITA, *L'Italia ai tempi del coronavirus: rileggendo la Costituzione italiana*, in *Federalismi.it*, 2020 p.1 ss.: «the instrument of the decree of the President of the Council of Ministers is certainly a faster and more flexible instrument in a situation like the present one, even if it suffers from the risk of an overexposure of the holder of power. [...] The decree-law, while serving all the traditional defects that we know about the training procedure [...] appears more guaranteed for the involvement of the President of the Republic, called to issue the act, and of Parliament, called to conversion into law». Furthermore, as argued by M. CAVINO, *Covid-19. Una prima lettura dei provvedimenti adottati dal Governo*, in *Federalismi.it*, 2020, pag. 5 e ss., the reasons that led the Government to this logic of centralization and expeditiousness, without territorial “interference”, stems from an assessment of inadequacy of the regulatory systems in force with respect to the nature of the emergency, while not compromising the safety of the whole national territory. Finally, according to G. TROPEA, *Il Covid-19, lo Stato*, cit., nevertheless, it is appropriate to highlight how the provisions and ordinances are in any case inserted «in a network of protection and limits dictated by the Constitutional Court»: such as limited efficacy over time, effective

be taken “with full respect for the dignity, human rights and fundamental freedoms of persons”, and in turn must reflect the international law principles of *necessity*, *legitimacy*, and *proportionality* that govern limitations to and derogations from rights and freedoms<sup>31</sup>. The above-mentioned principles should be declined by assessing the wider “collective”<sup>32</sup> short and long terms' interest, obviously not falling into violent or discriminatory practices<sup>33</sup>, nor in any kind of future *misuse* or *abuse*<sup>34</sup> such as, for example, as it concerns of personal data processing<sup>35</sup>.

The complexity of dealing with an emergency is linked to *time-constraints* and *uncertainty*: therefore, the *predictivity*-ability and the timeliness in detecting it are fundamental, in order to promptly start the decision-making process. The World Health Organization<sup>36</sup> recommends all Countries to be prepared in advance to the decision-making time<sup>37</sup>, adopting an ethical approach to assess and balance a range of different interests while, at the meantime, ensuring the protection of human and the special needs of vulnerable and minority groups. In fact, besides health, one of the major concerns in any pandemic emergency (like any other urgent public health situation) is that - in a short time - it requires to make serious and impactful decisions, which asks for balancing individual interests in conflict with the interests of the community.

In the pandemic alert period, on the one hand, the most effective measures are *detection*, *surveillance* and *medical prophylaxis*: the first two are nowadays mainly implemented using Artificial Intelligence. In fact, Internet of Things devices can help and support in an early detection of outbreaks (e.g. either through thermal cameras or IoT-sensors), and in the identification of possible cases of infection (predictive perspective), as well as in implementing models on the evolution of the viral epidemic (thanking to an Artificial Intelligence integration). But some concerns arise about the legitimacy of the invasion of privacy. This great concern is at the centre of the political and technical-institutional debate, so much so that the European Data Protection Board<sup>38</sup> assigned concrete mandates to its expert subgroups to develop guidance on several aspects of data processing in the

publication, compliance with the principles of the system legal, adequacy, proportionality, protection of custody.

<sup>31</sup> R. HABIBI, G. L. BURCI, T. C. DE CAMPOS, D. CHIRWA, M. CINÀ, S. DAGRON, M. ECCLESTON-TURNER, L. FORMAN, L. O GOSTIN, B. MASON MEIER, S. NEGRI, G. OOMS, S. SEKALALA, A. TAYLOR, A. E. YAMIN, S.J. HOFFMAN, *Do not violate the International Health Regulations during the COVID-19 outbreak*, in *The Lancet*, 2020 (10225) p.664 ss.; THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.

<sup>32</sup> *i.e.*, of the whole population.

<sup>33</sup> It is appropriate, in this case, to refer to European Convention on Human Rights at article 14 “Prohibition of discrimination”, and at article 15 “Derogation in time of emergency” and to Protocol n.12; and to Charter of Fundamental Rights of the European Union at articles 4, and 53.

<sup>34</sup> *e.g.* referring to Charter of Fundamental Rights of the European Union at article 54.

<sup>35</sup> See following considerations about data retention, storage limitation and data processing purposes, as provided by article 23 of Regulation (EU) n.2016/679.

<sup>36</sup> Even considering the severe consequences both on human health and socio-economic life. See WORLD HEALTH ORGANIZATION, *Pandemic influenza preparedness*, cit.

<sup>37</sup> See G.I. HAWE, et al., *Agent-based simulation*, cit.; the emergency-management-process (consisting of two components, the crisis and the consequences), can be described through the following actions: in the very short term, trying to prevent an imminent negative event, and otherwise, mitigating its effects. Then, aiming to avert further damage, and securing the “area” and addressing the immediate destructive effects of the incident. In the long term, adopting a strategy to prevent the impact from escalating, then aiming to a complete recovery of normal condition.

<sup>38</sup> During its 20th plenary session on 7 April 2020, following the decisions made during the EDPB's 19th plenary session of 3 April 2020, as reported by the EDPB press release of April 7th, 2020.

fight against COVID-19, in particular on: (a) geolocation and other tracing tools and (b) processing of health data for research purposes in the context of the COVID-19 outbreak.

On the other hand, during a pandemic, the actions aim to contain and delay the spread of the virus: past experience shows that population-based measures, such as *social separation*, *community restrictions*, including *isolation* and *quarantine*, form a significant response to pandemics. Nevertheless, this multiple targeted approach can have deep adverse consequences for the economy and civil liberties, both in the short and in the long term<sup>39</sup>. As a matter of facts, physical and social distancing measures can affect many fundamental rights listed in the Charter of Fundamental Rights of the EU, such as: «the rights to liberty and security (article 6), respect for private and family life (article 7), freedom of thought, conscience and religion (article 10), freedom of expression and information keep together on one line, freedom of assembly and of association (article 12), freedom of the arts and sciences (article 13), and freedom of movement and of residence (article 45)»<sup>40</sup>.

Furthermore, both the national Government<sup>41</sup> and the regional ones<sup>42</sup>, in acting with such strong provisions<sup>43</sup> to contain the virus spread, has to be observed in the light of above-mentioned Bauman's G-Local theory. Such local based restrictions are not in conflict with national ones, but have to be considered as *complimentary*, and they should be considered in a global (and national) importance: indeed, in applying the *subsidiarity principle*<sup>44</sup>, regional governments are answering to need of implementing a “local” and more specific strategy to cope with the emergency, in the frame of a larger international relevance. «Adaptation, therefore, of the panorama of globalization to local realities in a perspective in which, however, the global and the local are not excluded precisely because the reference parameter is the human condition. If so, it is precisely this assumption that makes cities, more than any other subject, “*Glocal defenders of Rights*”<sup>45</sup>: in other words, a place of guarantee of protection of human rights and, therefore, leaders in driving change from a “effective local” to a “true global” governance»<sup>45</sup>. For example, referring to Italy, in this light the Decree of the President of the Council of Ministers of 28 March 2020 should be read and interpreted<sup>46</sup>: the ongoing social risk of rioting as well as sudden impoverishment,

<sup>39</sup> L. GOSTIN, *Public Health Strategies for Pandemic Influenza: Ethics and the Law*, in *Jama*, 2006, p.1700 ss.

<sup>40</sup> THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.

<sup>41</sup> As written by M. CAVINO, *Covid-19. Una prima lettura*, cit. «the first Prime Ministerial Decree is dated 23 February 2020 (G.U.n.45), contextual to the law decree n.6/2020. It reaffirms the limitations already adopted with the ordinances of the Minister of Health limited to the territories of the municipalities of Lombardy and Veneto affected by outbreaks of contagion. At national level, it is mandatory for anyone who has passed through the territories affected by outbreaks to communicate this circumstance to the health authorities so that they can take all necessary measures, including fiduciary home stay with active supervision».

<sup>42</sup> This kind of limitations are not in contrast to article 2 of the Protocol n.4 to the Convention for the Protection of Human Rights and Fundamental Freedoms, and to articles 4 and 45 of Charter of Fundamental Rights of the European Union, since are needed in a democratic society in the interest of public safety and for the protection of health.

<sup>43</sup> It is appropriate to note that local measures were, often, more stringent than national ones.

<sup>44</sup> e.g., in accordance to articles 117 and 118 of the Italian Constitution; and however, in the respect of the “right to health”, e.g., enshrined in art. 32 of the Constitution, which defines it «as a fundamental right of the individual and as a collective interest».

<sup>45</sup> See also, G. TIEGHI, *Città, diritti umani e tutela glocal*, in *Federalismi.it*, 2019, p.9 ss.

<sup>46</sup> It is appropriate to frame all the provisions of the Government starting from article 2 of the Italian Constitution, which places the recognition and guarantee of “the inviolable rights of the person, both as an individual and in the social groups where human personality is expressed” at the same level of the to the request for “fulfilment of the fundamental duties of political, economic and social solidarity”. In particular, during the health emergency of COVID-19, according to B. CARAVITA, *L'Italia ai tempi del coronavirus*, cit.: «the

such as not to allow individual citizens certain fundamental rights (for example, the right to food), led the national government to intervene promptly, with a delegation to the municipalities and voluntary associations to distribute “food vouchers” and food to the poor. This action reflects both the process of “recognizing urbanity”<sup>47</sup> and the transition from Human to “*Global City Rights*”, which is in line with the Hague Declaration<sup>48</sup>, that expects “action-oriented solutions” in an interdependent world, concretising that “soft governance” which develops on two levels: the relationship between duties and rights for cities; the role of the Mayor, as a builder of a new model of democratic governance (both local and global), also to guarantee the fundamental rights of citizens, in relation to local specificities<sup>49</sup>.

### 2.1. *The first front of the emergency: the synergic effort between Human and Artificial Intelligence*

The preparedness for a health large scale emergency must be contextualized juridically with respect to the right to protection of health<sup>50</sup>, as appropriate measures designed to prevent, as far as possible, epidemic; and in conjunction with some other technical aspects, which should be considered as its declinations. At this stage, one of the main aims is to reduce uncertainty related to unexpected events: the simulation of emergency scenarios can offer a level of verisimilitude, although it is very difficult to involve the whole population in training in all possible risk-exposures, even to because of the high related investments<sup>51</sup>. In addition, beyond the aspect of pandemic preparedness,

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balance between rights and duties therefore constitutes the first key to understanding the constitutional balance, in general and in ordinary periods».

<sup>47</sup> According to the “Resolution Empowering Cities to Cope with Global Challenges” of the Global Parliament of Mayors, at the occasion of the First UN-Habitat Assembly (Nairobi, 29 May 2019) «these urban challenges request to reconsider the distribution of power and competences at the right level, giving cities and urban areas the means to act and initiate the necessary systemic transitions. Not only such institutional and legal changes are barely considered, the reports even state a reduction of means: “The New Urban Agenda and other development agendas are being implemented within the context of stagnation or even possible decline in the share of development assistance available for urban programmes”. This lack of recognition of the centrality of urban governance to positively cope with the global challenges increases the tension between cities and the suburban hinterland, between urbanity and the national governments. This tension is even more tangible when national governments opt for protective nationalist orientations».

<sup>48</sup> The “Hague Declaration” was formalized by the inaugural convening of the Global Parliament of Mayors (GPM) in The Hague, in September 9-11, 2016.

<sup>49</sup> See also, G. TIEGHI, *Città, diritti umani*, cit., p.11-12. For example, of those small local communities mostly populated by elderly people, far from large urban centres, where the needs are very different from those of the metropolises; or again, to those areas strongly characterized by irregular work phenomena, which due to the lock-down, suffer the most negative economic impact, due to a sudden loss of the source of income, as argued by M. BERTOLISSI, *La tutela della salute al tempo della crisi*, in M. BERTOLISSI, *Autonomia e Responsabilità sono un punto di vista*, Napoli, 2015, pp. 541-559, although in a different context.

<sup>50</sup> It seems adequate to also refer to European Social Charter, at article 11 “The right to protection of health”: «with a view to ensuring the effective exercise of the right to protection of health, the Contracting Parties undertake, either directly or in co-operation with public or private organisations, to take appropriate measures designed inter alia: (3) to prevent as far as possible epidemic, endemic and other diseases». See also, L. PANELLA, *La Carta Sociale Europea come parametro interposto nei giudizi di legittimità costituzionale ex art.117, co.1. Cost.*, in *Ordine Internazionale e Diritti Umani*, 2020, p.26 ss.

<sup>51</sup> Thus, the solution lies in a “computational simulation” (virtual reality), which allows to re-produce scenarios that would be prohibitively expensive and dangerous, or even physically impossible to re-create in reality, so such so that the British Columbia Institute of Technology listed it as one of the main strengths of the “Emergency Simulation Program”; see also G.I. HAWE, et al., *Agent-based simulation*, cit.



the case of COVID-19-virus and its spread provide the observation and proposal of a new cooperative model of “*urban health*” (based on the interactions between real- and digital-dimensions) where technology-tools and labs around the world share data and collectively work to devise tools and cures, as well as Smart-City-professionals are focused on how collaborative strategies could allow for the maximization of public safety on such and similar scenarios<sup>52</sup>. Therefore, a functional integration with “smart cities” might complete the frame: indeed, the last two decades of Information and Communication Technologies (ICT) evolutions led to a wide availability of public and private broadband services (both air or wired based), which allowed an interconnection of mobile computing and devices to IOTs through the Internet. The direct consequence is a broader data collection from any sectors of life<sup>53</sup>, with some possible impacts, interferences and intrusions in the sphere of private life and privacy. In particular, a major concern was referred to the «effort in cultivating electronic communication about health events» in order to create a Public Health Intelligence (PHI), which can detect unfolded health events<sup>54</sup>. The capitalisation of “wisdom of crowds” through Artificial Intelligence (*lato sensu*), and their mutual integration, are coherent with the global approach on world health: «for example, under article 5.3 of the most recent iteration of the IHR, the WHO is mandated to collect information regarding events through its surveillance activities and assess their potential to cause international disease spread and possible interference with international traffic’. Here, the apprehension of health events, and especially their potential to cause trans-local disruption, is key»<sup>55</sup>.

The close relationship between Artificial Intelligence and the health emergency management is proved by the fact that from the early stages of the fight to COVID-19, temperature screenings were carried out at airports and in areas of mass convergence, using digital contactless devices: not only simple thermometers, but complex devices, which allowed reducing the paramedics' infection-risk-exposure, and also to «enrich health databases, provide more accurate, efficient, comprehensive and real-time information on outbreaks and their dispersal»<sup>56</sup>, thus contributing to the Governments' decision making process.

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<sup>52</sup> Z. ALLAM, D.S. JONES, *On the Coronavirus (COVID-19) Outbreak and the Smart City Network: Universal Data Sharing Standards Coupled with Artificial Intelligence (AI) to Benefit Urban Health Monitoring and Management*, in *Healthcare*, 2020 p.46 ss.

<sup>53</sup> J. STOEBER, *The Frost Multidimensional Perfectionism Scale revisited: More perfect with four (instead of six) dimensions*, in *Personality and Individual Differences*, 1998, p. 481 ss. Furthermore, this form of decentration of information needs a greater sensitivity and awareness, a timely communication system, and it requires an incorporation and formalisation of unofficial knowledge in real time. This is currently possible by applying, for instance, Machine Learning logics to Big Data analysis, even to predict the possible dangerous evolutions.

<sup>54</sup> Nowadays, PHI combined with Artificial Intelligence allow to perform epidemiological surveillance and the systematic tabulation of case reports, through non-traditional activities such as blogging and data-mining in electronically mediated social networks: since each piece of information is relevant, the direct communication of the health events as perceived by people, becomes strategic.

<sup>55</sup> M. FRENCH, E. MYKHALOVSKIY, *Public health intelligence*, cit. This link is made explicit in Annex 2 “*Decision instrument for the assessment and notification of events that may constitute a public health emergency of international concern*” to WHO IHR (2005), according to which the detection of any event of potential “international public health concern” (including those of unknown causes or sources and/or those involving other events or diseases than those listed in it) shall lead to utilization of the given algorithm.

<sup>56</sup> Z. ALLAM, D.S. JONES, *On the Coronavirus*, cit.

In the age of the Internet, the quantity and quality of processed data is increasing exponentially every day, particularly in the medical field<sup>57</sup>: currently, all data sources contribute significantly to Big Data<sup>58</sup> - which feeds Artificial Intelligence, Machine Learning, and Internet of Things - so, it should be better to refer<sup>59</sup> to Smart Data<sup>60</sup> (since «due to their nature and customization, these give an added value to “Health 4.0”, *i.e.* that mechanism of close collaboration between the operators of the integrated health and pharmaceutical system»), and to *interoperability*<sup>61</sup>. Thus, the right to health (both in the ordinary and extraordinary dual-regime) is also guaranteed by the support of Artificial Intelligence, through some *health dashboards*<sup>62</sup>, which allow both constant surveillance<sup>63</sup> and prompt<sup>64</sup> and safe<sup>65</sup> intervention. In particular, the relationship between Artificial Intelligence, health and geography, currently is applied through some web-based tools: the previous experience made - during SARS-CoV epidemic of 2002/2003 - proved indispensable for timely understanding of the new disease source, dynamics and epidemiology<sup>66</sup>. It should be noted that, the World Health Organization already applies GIS technology (using the ArcGIS Operations Dashboard) to surveil the evolutions of COVID-19, as well as the Johns Hopkins University CSSE (which is collecting relevant data from reliable Institutions)<sup>67</sup> and other private companies<sup>68</sup>, highlighting some concerns

<sup>57</sup> Stanford Medicine acknowledges this increase is not limited to hospital records, but from various sources such as health professionals, clinics, laboratories, Citizen's Electronic Health Record, online-disease-certifications and prescriptions, etc. See also Z. ALLAM, D.S. JONES, *ivi*.

<sup>58</sup> According to A. GANDOMI, M. HAIDER, *Beyond the hype: Big data concepts, methods, and analytics*, in *International Journal of Information Management*, 2015, p.137 ss., Big Data can be defined as «high-volume, high-velocity and high-variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision making».

<sup>59</sup> A. CAPOLUONGO, *Big data nel settore farmaceutico: gestirli nel rispetto del Gdpr*, in *Agenda Digitale*, 2019.

<sup>60</sup> *Smart Data* refers to smaller (than Big Data) sets of valuable and actionable information, more focused on creating value, meaning, and accuracy for some sort of purpose or outcome.

<sup>61</sup> *i.e.*, realtime interaction across separate networks, which increases speed, qual-quantitative data analysis results, and the range of applications.

<sup>62</sup> In Italy, the most used is available at [paginemediche.it](http://paginemediche.it)

<sup>63</sup> The patient, after registering on the platform, daily enter their data and parameters allowing the doctor to monitor them.

<sup>64</sup> The effectiveness increases, because the in-depth analysis is carried out before the comparative analysis of the data, and subsequently with a video call.

<sup>65</sup> In fact, the doctor carries out all activities *remotely*, reducing the risk of direct contact.

<sup>66</sup> According to M.N. KAMEL BOULOS, E.M. GERAGHTY, *Geographical tracking and mapping of coronavirus disease COVID-19/severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) epidemic and associated events around the world: how 21st century GIS technologies are supporting the global fight against outbreaks and epidemics*, in *International Journal of Health Geographics*, 2020, p.1 ss. the use of Geographic Information Systems (GIS) and such methods as near-realtime mapping of disease cases and of social-media reactions to disease spread, also using population travel data, offered an effective response in terms of predictive-risk-mapping, and mapping superspreader trajectories and contacts across space and time.

<sup>67</sup> Such as WHO, US Centers for Disease Control and Prevention, the European Centre for Disease Prevention and Control, the Chinese Center for Disease Control and Prevention, the China's National Health Commission, the Dingxiangyuan and others, tracking the virus spread in real-time, making the interactive dashboard available on its website, also for downloading data.

<sup>68</sup> As reported by M.N. KAMEL BOULOS, E.M. GERAGHTY, *ivi*, other health mapping software (based on online informal sources) are already focused on Coronavirus pandemic. For example, HealthMap (USA) collects outbreak-data from a range of sources, including news media, social media, validated official alerts and expert-curated accounts; and BlueDot (Canada) which uses Machine Learning and natural language processing techniques to sift through news reports in 65 languages, forum and blog posts, airline ticketing

about the use of data in the *post-pandemic* period, since there is no clear information nor guarantee, about the future purposes.

## 2.2. *The second front: contain the virus-spread*

In case of pandemic, the prompt pro-action (not just a reaction) of Institutions, in the early stages of the emergency is essential: as already argued above, the WHO International Health Regulations allows the Countries<sup>69</sup> to adopt strict measures to contain and slow down the virus spread and infection<sup>70</sup>, even derogating to ordinary laws, but in full respect for the dignity, human rights and fundamental freedoms of persons<sup>71</sup>. «As numbers of infections rose, most countries instituted social distancing measures for the general population, such as suspension of mass gatherings, stay-at-home requirements, closure of non-essential businesses and public spaces, and physical distancing when outside the house»<sup>72</sup>, and some EU Member States have implemented different strategies to enforce these measures, such as financial sanctions for those not complying with. Therefore, Governments adopted *draconian measures* (restrictions and derogations in a context of extra-ordinary circumstances)<sup>73</sup> aware of long-term highly negative economic impact, but giving immediate priority to health protection and well-being of each citizen<sup>74</sup>. Although strong and aggressive, these measures are not only appropriate but necessary, also limiting normal civil liberties (which each citizen must have guaranteed in a “normal” condition), by adopting, for example, the same assessing method set by the “balancing of interests” principle.

Indeed, the latter principle aims to evaluate whether collective interest prevails over individual one: it is a complex operation, implemented not always by following duly the mere legal interpretation but, rather based on common sense and a sense of responsibility<sup>75</sup>. In case of a pandemic, it is appropriate to refer to *principles of proportionality*

data, animal disease networks, etc., gathering indications and news of unusual, unfolding events and possible disease outbreaks. Now, in implementing these new tools to protect human lives, Big Data can be collected from several sources, displaying results in the interactive and near-real-time and online dashboards, that have become a pivotal source of information during the COVID-19 outbreak. See, also, the following considerations about some concerns on the exposure to risk of individual rights and compliance to current data protection laws, especially when processed by private entities.

<sup>69</sup> Already involved or potentially involved.

<sup>70</sup> J. QUINN, et al., *Computational Sustainability*, cit.

<sup>71</sup> Pursuant to article 3.1 of International Health Regulation of WHO.

<sup>72</sup> THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.

<sup>73</sup> For example, the Chinese and Italian experience in facing the COVID-19 emergency soon became a best practice for all the other Countries, on how to reduce the spread of the infection, by slowing down and stopping the transmission: in coherence with the principles of balancing of interests and of necessity, firstly both adopted different forms of reduction of individual mobility and transportation restrictions, the so-called “lockdown” (closing schools and educational, government, and business units), cancelling mass gatherings and other measures involving social direct contacts; and sometimes some forms of “curfew”, in terms of time and involved area. Despite initial perplexities of some Countries (who considered these measures unjustified), the WHO Director-General expressed his grateful and some positive feelings to China and Italy for the strong and decisive strategy, aware that these are taking a heavy toll on societies and economies, encouraging them to continue in this direction, since containment actions can stop transmission and prevent the spread of the virus.

<sup>74</sup> J. QUINN, et al., *Computational Sustainability*, cit.

<sup>75</sup> L. BLAAUW-WOLF, *The “balancing of interests” with reference to the principle of proportionality and the doctrine of “Güterabwägung” - A comparative analysis*, in *South African Public Law*, 1999, p. 178 ss.

and of *necessity*<sup>76</sup>, thus being legitimized by the extraordinary and temporary condition, due to an exogenous cause. In addition, according to the World Health Organization, Governments should apply some principles (such as equity, utility/efficiency, liberty, reciprocity, and solidarity in light of local context<sup>77</sup> and cultural values) as a framework within assessing the “balancing of interests”, since any limitation to individual rights and civil liberties must be *necessary, reasonable, proportional, equitable, non-discriminatory*, and not in violation of national and international laws<sup>78</sup>. Indeed, it is worth adding that a possible risk is that a Country could abuse the possibilities offered by the emergency, as a subterfuge to practice any form of discrimination<sup>79</sup>. It is proper to add that, these latter principles should be declined in such measures, as rigorously as possible, with a “tailor-made” approach, aiming only to respond to the relevant public health need, and considering that any unnecessary excess measure impacts the sphere of fundamental rights<sup>80</sup>.

Furthermore, it is worth highlighting that the above-mentioned terms also recall and can be described as “*force majeure*” that is a “superior-force” (*i.e.*, not depending of one party's will), giving the meaning of extraordinariness and without faculty of choice. Actually, “*force majeure*” can be invoked in contractual relationships, as a temporary impediment to perform contractual obligations. For completeness, according to some authors «the prior standard of “*impossibility*” to invoke force majeure has effectively been replaced by “*impracticability*”»<sup>81</sup>, which is not always easy to prove, since different laws and jurisdictions take different approaches and «there is no universally accepted definition of the requirements to successfully invoke force majeure»<sup>82</sup>. It seems important, moreover, to highlight that the above cited restrictions and derogations are lawful only by ascertaining the state of emergency or by a specific official declaration of the WHO<sup>83</sup>. On the other

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<sup>76</sup> In accordance to Charter of Fundamental Rights of the European Union at article 52.1 «Any limitation on the exercise of the rights and freedoms recognised by this Charter must be provided for by law and respect the essence of those rights and freedoms. Subject to the principle of proportionality, limitations may be made only if they are necessary and genuinely meet objectives of general interest recognised by the Union or the need to protect the rights and freedoms of others».

<sup>77</sup> *i.e.*, it is adequate to refer to the above mentioned principle of subsidiarity and Bauman's G-Local Theory.

<sup>78</sup> See WORLD HEALTH ORGANIZATION, *Pandemic influenza preparedness*, cit.

<sup>79</sup> L. GOSTIN, *Public Health Strategies*, cit.; moreover, it is proper to recall the European Convention on Human Rights at articles 14 “Prohibition of discrimination”, and 15 “Derogation in time of emergency” and to its Protocol n.12; and to Charter of Fundamental Rights of the European Union at articles 4, 53 and 54.

<sup>80</sup> See M. A. DAUBERT, *Pandemic Fears and Contemporary Quarantine: Protecting Liberty through a Continuum of Due Process Rights*, in *Buffalo Law Review*, 2007, p. 1299 ss.

<sup>81</sup> M. AUGENBLICK, A. B. ROUSSEAU, *Force Majeure in Tumultuous Times: Impracticability as the New Impossibility - It's Not as Easy to Prove as You Might Believe*, in *The Journal of World Investment & Trade*, 2012, p. 59 ss.

<sup>82</sup> M. AUGENBLICK, A. B. ROUSSEAU, *ivi*.

<sup>83</sup> Thus, restrictions to individual freedom adopted by a Government can be justified, in the above mentioned principles of necessity and proportionality, applied in superior “collective” interest. For example, the Italian provisions (Decree of the President of the Council of Ministers of 8 March 2020 and Decree of the President of the Council of Ministers of 9 March 2020) were aimed to avoid gatherings of people (setting the minimum distance to be maintained in public places in at least one meter) and providing people to stay at home, although some exceptions were foreseen at the earlier stages, in case of “necessity” (such as “proven working needs”; “situations of necessity”; “health reasons”; “return to your home, home or residence”). It should be noted that, in this context of a pandemic the Government also acts in compliance with art. 117, paragraph 1, which requires both the national and regional legislators to operate «in compliance with the Constitution and with the constraints deriving from EU legislation and international obligations» according to B. CARAVITA, *L'Italia ai tempi del coronavirus*, cit. p.1 ss. Furthermore, it is relevant the position emphasised by THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.: «many of these measures reflect how, in exceptional emergency situations, the urgent need to save lives - itself a core

hand, in literature, the debate about the effectiveness of measures to monitor the ongoing situation is yet opened up<sup>84</sup>.

During COVID-19-emergency, there are many examples in which ICT and Artificial Intelligence have a main role. Firstly, the Regione Lombardia (Italy) analysed<sup>85</sup> some anonymized data extracted from cell-phone-records, although not going in deep in a *movement behaviours analysis*, the result was not very significant. The China's National Health Commission and China Electronics Technology Group Corporation, launched a close-contact-detector-app, which uses the public authorities' Big Data on transport and movement of people, crossing them to the disease case records, in order to verify whether the registered user had any close contact with a person confirmed or suspected of having been infected in the recent past<sup>86</sup>. Chinese police wore smart-helmets, able to detect the body temperature of any person, even in crowds, within 5 meters of helmet action. Furthermore, firstly many Italian local-police corps put in place an experimental use of drones, multiplying observation capacities<sup>87</sup>, with quite evident advantages deriving in terms of the ratio between costs and benefits<sup>88</sup>, that afterwards even the national Government adopted this solution on the whole national territory.

A further consideration, to complete the framework, is needed: a few Member States almost completely closed their borders, while many EU countries closed airports or in other cases, those entering, including nationals and residents, must meet new requirements including undergoing health checks<sup>89</sup>. As evidenced by the World Health Organization, transnational public health law is increasingly important in global health: for this reason, it declined also some specific recommendations for border controls and surveillance<sup>90</sup>.

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fundamental rights obligation - justifies restrictions on other rights». In this context, it seems anyways relevant to highlight the concerns highlighted by R. HABIBI, et al., *Do not violate*, cit. about «imposing travel restrictions against China during the current outbreak of 2019 novel coronavirus disease (Covid-19), many countries are violating the IHR», expressing a different position, although focusing on the first stages of the virus outbreak and referring to China.

<sup>84</sup> In fact, there is a deficiency of analytical results on the impact of such restrictive provisions, mostly due to the lack of large-scale-quantitative-data on the movement of people: «such information is typically obtained from census data, which in the case of emerging regions is computed only every 5 to 10 years». Years ago, it was adopted a novel agent-based model based on cell-phone-records to compute the individual mobility and social patterns of a population, proving its positive effect during the H1N1-outbreak in Mexico, reducing by 10 percent the peak number of individuals infected by the virus and postponed the peak of the pandemic by two days. See R. HABIBI, et al., *Do not violate*, cit.; and J. QUINN, et al., *Computational Sustainability*, cit.

<sup>85</sup> In 2020 emergency, e.g., concerning gatherings of people and the flows of movements.

<sup>86</sup> See M. N. KAMEL BOULOS, E. M. GERAGHTY, *Geographical tracking*, cit.

<sup>87</sup> i.e., flying over squares and on the entrances of public parks, these allow the exact location to be reported to officers, in order to identify violators of restrictions.

<sup>88</sup> N. COLACINO, *Impiego di droni armati nella lotta al terrorismo e accesso alla giustizia da parte delle vittime*, in *Ordine Internazionale e Diritti Umani*, 2018, p.161.

<sup>89</sup> THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.: indeed, it should be noted that although EU citizens and their family members have the right to move and reside freely within the territory of EU Member States, articles 27 and 29 of the Free Movement Directive (2004/38/EC) justifies measures restricting the freedom of movement in case of “diseases with epidemic potential” provided they comply with the principle of proportionality.

<sup>90</sup> See WORLD HEALTH ORGANIZATION, *WHO SARS risk assessment and preparedness framework*, Geneva, 2004, which include entry or exit screening, reporting, health alert notices, collection and dissemination of passenger information, travel advisories or restrictions, and physical examination or management of ill or exposed individuals, as reported by L. GOSTIN, *Public Health Strategies*, cit. Furthermore, it is worth highlighting that the World Trade Organization defends free commerce, but similarly permits science-based trade restrictions to protect the public's health.

But it is appropriate to notice, that the IHR<sup>91</sup>, for example regarding international travellers, provides some specific requirements to protect human rights and freedoms, such as “prior informed consent”<sup>92</sup> for examinations and prophylaxis<sup>93</sup>, although subject to exceptions in exigent circumstances. Furthermore, data is being collected from airports through screening and monitoring, using smart-sensors installed in airport infrastructures, and from personnel working in those air/seaports: «though these are not specifically fashioned to track the present case of virus outbreak, they are able to track other related parameters like heartbeat, blood pressure, body temperature and others variables, that when analysed can [...] provide insightful information on the health scenario in any given area»<sup>94</sup>.

The latter cases prove that a traditional approach (“telephone data analysis”) is obsolete<sup>95</sup>, and in a frame of interoperability of smart-cities, several IoT-solutions can be timely implemented, although some concerns about privacy and individual freedoms emerge; and whether these solutions (mainly based on Artificial Intelligence, and which implies limitation to personal rights and freedoms) are really lawful.

The European Data Protection Board (EDPB)<sup>96</sup> highlighted that national laws implementing the Directive 2002/58/EC (the so called “ePrivacy Directive”) must be respected: location data can only be used by the operator when made anonymous or with the consent of individuals, except in the case a Member State enacted a legislative measures to safeguard public security<sup>97</sup>. In any cases, these measures should be necessary, appropriate, proportionate within the democratic society; limited only to the duration of the emergency, and in accordance with the Charter of Fundamental Rights and the European Convention for the Protection of Human Rights and Fundamental Freedoms.

### 2.3. *The third front of the “war”: Infodemic*

The “war” on the invisible enemy is also fought on a “third front”: *Infodemic*, which refers to the media's ability to amplify the effects of communication, with the main

<sup>91</sup> WORLD HEALTH ORGANIZATION, *International Health Regulations*, Geneve, 2005, at articles 23.32, 37-8 and Annexes 8-9.

<sup>92</sup> It is also worth highlighting how a parallelism with data processing emerges: in fact, the provision of GDPR about the “prior informed consent” (as stated by recital n.61, articles 4.1 and 12 of GDPR) derives directly from the medical and health practice, which consists (as reported by A. CAVALIERE, *Consenso informato: profili evolutivi e rapporto medico-paziente*, in *Diritto.it*, 2018) «in the patient's right to self-determination regarding the choices concerning his own health, and the problem of information to the patient, so that they can express consent to the proposed health treatment»; the latter affirmation is given in the light of the definition referred to in article 1, of Italian Law of 22 December 2017, no. 219. Therefore, in such case, the respect of fundamental rights has to be referred both to health and to “privacy” field.

<sup>93</sup> As well as, the obligations to provide adequate food, water, medical care, and other essentials to international travellers who are isolated or quarantined. Furthermore, as reported by L. Gostin, *Public Health Strategies*, cit., even the US Supreme Court (in *Shapiro v Thompson*, 394 US 618, 1969) has held travel and free association to be fundamental rights.

<sup>94</sup> Z. ALLAM, D. S. JONES, *On the Coronavirus*, cit. See also the following consideration about the obligations of declaring the purposes of data processing.

<sup>95</sup> Since very large portions of the population live “in symbiosis” with mobile devices (which work on integrated GPS-technology), nowadays, it is possible to collect real-time-data about human-mobility to promptly verify the effectiveness of those measures adopted.

<sup>96</sup> See THE EUROPEAN DATA PROTECTION BOARD, *Statement on the processing of personal data in the context of the COVID-19 outbreak*, adopted on 19 March 2020, referring to processing of telecom data, such as location data.

<sup>97</sup> Pursuant to art.15 of the “ePrivacy Directive”.

concern being the spread of fake news or misleading information (*i.e.*, misinformation), in particular, on On-line Social Networks (OSNs)<sup>98</sup>. In managing a large-scale emergency, global communication is fundamental and involves many responsibilities since, on the one hand, it can influence people's daily behaviour; and on the other one, disinformation undermines democracy affecting political decision-making, and it can also weaken freedom of expression and information safeguards.

The position of WHO is clear: «is not only to information to make sure people are informed, but it is also making sure people are informed to act appropriately»<sup>99</sup>: its efforts are focused to ensure that “real-information” can appear first in online searches<sup>100</sup>.

This arising issue concerns the “misuse” of information by those people who fuel media with false information, and whether it can be considered an “abuse”<sup>101</sup>. Indeed the Italian Data Protection Authority<sup>102</sup> stressed that the improper use of information regards even the dissemination on social media and in press media (including online) of excessive personal data concerning people tested positive for COVID-19 who violate personal privacy: information, especially at this time, must show all its essential service characteristics for the community, without disregarding all those guarantees to protect the confidentiality and dignity of people affected by the disease, contained both in the current legislation, and in the “deontological rules” relating to journalistic activity<sup>103</sup>.

Also, the European Union Agency for Fundamental Rights<sup>104</sup> aware that almost all EU Countries face disinformation on the pandemic, recalled the attention on staying vigilant and ensuring the implementation of all data protection safeguards when protecting health. In this sense, it is appropriate to make a clear reference to the “freedom of opinion and expression”, that is a fundamental right<sup>105</sup>, although it must be noted that it can be limited for some reasons, for example, in time of officially proclaimed public emergency<sup>106</sup>.

For completeness of the context, it is worth reporting that only few Countries already have a specific legislation to prevent the electronic communication of false statements of fact or misleading information, such as Singapore, which in 2019 enacted the

<sup>98</sup> See M. N. KAMEL BOULOS, E. M. GERAGHTY, *Geographical tracking*, cit.; and J. ZAROCOSTAS, *How to fight an infodemic*, in *The Lancet*, 2020, p. 676.

<sup>99</sup> J. ZAROCOSTAS, *ivi*.

<sup>100</sup> In addition, Neil Walsh, the Chief of the Cybercrime and Anti-Money Laundering Section at the United Nations Office on Drugs and Crime (UNODC), stressed both that people should get information from trusted sources and - that in this time of COVID-19 crisis - Cybersecurity is critically important, since a huge number of people under lockdown or movement restrictions are now working and studying remotely, making them susceptible to cybercrime, exposing them to many risks, even for their own rights.

<sup>101</sup> As reported by The European Union Agency for Fundamental Rights, *Coronavirus pandemic*, cit., some EU Member States initiated legal proceedings against individuals accused of deliberately publishing misinformation.

<sup>102</sup> See ITALIAN DATA PROTECTION AUTHORITY, *press release*, Rome, 31 March 2020.

<sup>103</sup> It is worth emphasising that, some positive (and non-punitive) actions in order to guarantee the correct right/duty of information - and therefore, with the aim of actively fighting the infodemic - have been adopted among the main Institutional actors. The Ethical Journalism Network published guidance with tips on how to report accurately on COVID-19, including how to avoid racial profiling, sensationalism and scaremongering; while in Italy, in addition to Rai (the public state television), the action of Co.Re.Com and the Order of Journalists of Molise is meritorious, who have set up an “Observatory on Fake news Coronavirus”.

<sup>104</sup> See FRA, *Press Release Protect human rights and public health in fighting COVID-19*, Vienna, 8 April 2020.

<sup>105</sup> As stated, e.g., by both by article 11 of Charter of Fundamental Rights of the European Union, and by article 19 of the Universal Declaration of Human Rights.

<sup>106</sup> e.g., pursuant to article 4 of the International Covenant on Civil and Political Rights.

Protection from Online Falsehoods and Manipulation Act. Furthermore, it should be noted that many anxieties about a possible dictatorial drift arose, when in response to the outbreak of the coronavirus, on 30 March 2020 the Hungarian parliament, approved a bill that greatly increases the power of the country's first far-right minister, which also introduces a terms of imprisonment for people who spread “fake news” about the virus or measures against it.

Given the high-risk exposure for the freedom of opinion and expression in such contexts, even these examples demonstrate that the aforementioned WHO proactive strategy is the best solution, that responds to the need to balance correctly information, without compromising individual rights.

### 3. *The International Human Rights Framework*

In order to introduce some specific considerations about the relationship between Artificial Intelligence and human rights, it is appropriate to dwell on some of the main aspects of the international legal framework.

The UN General Assembly, in adopting the Resolution 217 (III), enacted the International Bill of Human Rights, which consists of the five core human rights treaties of the United Nations: the Universal Declaration of Human Rights (adopted in 1948), the International Covenant on Civil and Political Rights (ICCPR, 1966) with its two Optional Protocols and the International Covenant on Economic, Social and Cultural Rights (ICESCR, 1966)<sup>107</sup>. The Bill, aiming to advance the fundamental freedoms and to protect the basic human rights of all people, influences the decisions and actions of Government, State and Non-State actors to make economic, social and cultural rights a top-priority in the formation and implementation of national, regional and international policy and law.

With the sole purpose of summarizing, it is appropriate to categorize the rights that are guaranteed under these instruments into three groups<sup>108</sup>: *civil* and *political* rights, such as the rights to conscience, exercise of religion, freedom of movement, and expression and assembly; *social* and *economic* rights, such as the rights to education, work, and health; and *group* rights, such as the right to self-determination<sup>109</sup>.

The first consideration is general: many of the public health and restrictive measures can be implemented are closely interrelated. Often their impact on fundamental rights is not traceable to a single measure but rather to the combined effects of various legal and policy initiatives<sup>110</sup>. Then, as argued by some authors<sup>111</sup>, in the context of virus infections,

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<sup>107</sup> The two covenants entered into force in 1976, after a sufficient number of countries had ratified them. Moreover, according to J. T. GATHIL, *Rights, Patents, Markets and the Global AIDS Pandemic*, in *Florida Journal of International Law*, 2002, p. 261 ss., it is worth highlighting that, in addition to the International Bill of Human Rights, there are other international and regional human rights instruments, such as the Convention on Elimination of All Forms of Discrimination Against Women, and the Convention on the Rights of the Child, and the African Charter on Human and Peoples Rights that guarantees certain social and economic rights.

<sup>108</sup> J. T. GATHIL, *ivi*.

<sup>109</sup> As it is possible to understand, the vastness of the field of application does not allow for a detailed analysis here, so it favours a focus only on some aspects directly related to the subject matter of this paper.

<sup>110</sup> THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.



the right to health raises at least two issues. *In primis*, whether it is a negative or positive right: some of the authors<sup>112</sup> in affirming that is a difficult task<sup>113</sup>, since the interpretation of constitutional provision or international legal guarantee to health is defined by both the text and by the principle of necessity. Given that there is no single criteria, it often happens that this interpretation is related to choices based on political sensibilities, values and convictions, not deriving directly and entirely from the legal materials. Consequently, the legal interpreters not only should keep a fidelity to the spirit of the legal text (as previously indicated), but should also relate to the particular social, historical, and economic context, combining it with the capacity of the Institutions in question to enforce the right<sup>114</sup>.

Referring to a pandemic, the right to health has to be assessed and protected, even considering and balancing all the other rights (such as economic, social, political), as well as the larger issues of social justice<sup>115</sup>. This consideration leads us to what was emphasized by the United Nations Conference on Human Rights in 1993: the *indivisibility*<sup>116</sup> and *interdependence* between, on the one hand, of social and economic rights, and on the other, of civil and political rights; rather than prioritizing one over the other<sup>117</sup>.

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<sup>111</sup> See T. L. BEAUCHAMP, R. R. FADEN, *The Right to Health and the Right to Health Care*, in *The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine*, 1979, p. 118 ss.; and J. DECKERS, *Negative "GHIs," the Right to Health Protection, and Future Generations*, in *Journal of Bioethical Inquiry*, 2011; and S. D. JAMAR, *The International Human Right to Health*, in *Southern University Law Review*, 1994; and J. T. GATHII, *ivi*.

<sup>112</sup> See A. RUGGERI, *La Carta dei diritti fondamentali dell'Unione Europea e le tecniche decisorie idonee ad assicurarne la efficacia ed effettività*, in *Ordine Internazionale e Diritti Umani*, 2018, p.15 ss.; J. T. GATHII, *ivi*.

<sup>113</sup> See A. RUGGERI, *ivi*, in particular p.25, in referring to the Charter of Fundamental Rights of the European Union, he affirms that «there was an animated debate about the merely “negative” or “positive” character of the constraints descending from its statements: an alternative, that posed by many authors lined up on either side, which appears to be suffocating, plagued by excessive schematism, overall inadequate to grasp in all its irrepressible nuances an internally very varied and articulated reality. Because the truth is that, at best, the alternative itself can only have value “per praevalentiam”: now giving statements in which the “positive” connotation appears to be more pronounced - if we want to continue to call it - and now others in which the negative footprint is more visible. However, it would be very approximate to distinguish two clearly diversified (and, indeed, opposite) species of constraints, just as it is to distinguish - according to a scheme that is more and more wearily repeated - the rules from the principles: those only needing to be applied, these implemented (in fact, by means of the first ones). On the other hand, it is now proven that between the extreme horns of the alternative, sometimes actually visible to the naked eye, there is a very wide range of prescriptions whose nomological structure tends to be more attracted to one or the other horn without nevertheless to achieve them fully. The poverty of language, which knows no intermediate nuances between the above terms, does not allow adequate cataloguing; it is certain, however, that the greater or lesser prescriptive density is to be reported to the way in which the structure itself is made, but not only to this. In fact, the factors that contribute to the development of the constraint are multiple, obviously starting from the stakes, from the context in which the individual case fits, from the institutional balances that can be determined as a result of the decision, and so on».

<sup>114</sup> J. T. GATHII, *Rights, Patents, Markets*, cit.

<sup>115</sup> It is worth adding and highlight that B. CARAVITA, *L'Italia ai tempi del coronavirus*, cit. argued - with explicit reference to the “right to health” in the context of the Italian COVID-19 emergency - that «the annihilation of individual rights in favour of the community is not admissible in our constitutional system, but neither is collective interest can overwhelm the sphere of subjective protection. [...] In the name of the collective interest in health, subjective situations that fall within the dimension of fundamental rights may be limited - already in ordinary situations».

<sup>116</sup> See also L. PANELLA, *La Carta Sociale Europea*, cit. p.31.

<sup>117</sup> It seems appropriate to comment, as this definition given by the United Nations, reflects the aforementioned Holistic Complex Approach: also, for this reason, the methodological choice is confirmed and supported. Introducing the issue of the protection of fundamental rights and personal freedoms requires

In the European context, it is appropriate to refer to both the European Convention on Human Rights (ECHR) and the Charter of Fundamental Rights of the European Union<sup>118</sup>. In fact, if the purpose of safeguarding public health in a “emergency” allows<sup>119</sup> for derogation from the obligations under the ECHR<sup>120</sup>, the extent of these must be strictly required by the exigencies of the “contingent” situation: it is adequate to read it in the light of article 52 of the Charter of Fundamental Rights of the European Union, which recalls the need to respect the principle of proportionality. Thus, any limitations may be made only if they are necessary and genuinely meet objectives of general interest recognised by the Union or the need to protect the rights and freedoms of others. Obviously, each Member state should provide that such measures are not inconsistent with its other obligations under international law<sup>121</sup>: «well-established case law of the European Court of Human Rights provides that derogations should happen only in exceptional circumstances and in a limited and supervised manner to secure certain rights and freedoms under the ECHR»<sup>122</sup>.

However, these must fall within the context of respect for the dignity of the human person<sup>123</sup>: still according to article 52 of the Charter, any limitation on the exercise of the rights and freedoms recognised must be provided for by law and respect the essence of those rights and freedoms. And, therefore the motivation for a possible interference by a public authority with the exercise of this right, in a democratic society is only possible in the collective interests (such as national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others)<sup>124</sup>. Furthermore, both in the general context, but obviously even more specifically in the specific one of derogations, the enjoyment of the rights and freedoms set forth in the Convention shall be secured without discrimination on any ground<sup>125</sup>, recalling and strengthening what provided

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the ability to respect the pillars, but at the same time, the flexibility to interpret temporary circumstances and natural social changes.

<sup>118</sup> It seems adequate to report them in conjunction (*i.e.*, interpret the Charter in the light of the Convention), since article 53 of the Charter provides that it cannot be interpreted “as restricting or adversely affecting human rights and fundamental freedoms as recognised, in their respective fields of application, by Union law and international law and by international agreements to which the Union, the Community or all the Member States are party, including the European Convention for the Protection of Human Rights and Fundamental Freedoms, and by the Member States’ constitutions”. About the interpretation of the Charter in the light of the Convention and, furthermore, about the importance of the Charter within the supranational integration process, and the mutual influences on their ongoing implementation see A. RUGGERI, *La Carta dei diritti*, cit. in particular p.16-17 and p.23.

<sup>119</sup> Pursuant to article 15 (3) “Any High Contracting Party availing itself of this right of derogation shall keep the Secretary General of the Council of Europe fully informed of the measures which it has taken and the reasons therefor. It shall also inform the Secretary General of the Council of Europe when such measures have ceased to operate and the provisions of the Convention are again being fully executed”.

<sup>120</sup> At article 15; in addition, it is worth recalling, as well, to article 30 of the the European Social Charter, for what it concerns rights and freedoms of workers and the labour sphere.

<sup>121</sup> Pursuant to article 15 of the ECHR.

<sup>122</sup> THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.

<sup>123</sup> For an appropriate depth study about the relationship between dignity and human rights, e.g. see P. PUOTI, *Universalità dei diritti umani e protezione della diversità e dell'identità culturale*, in *Ordine Internazionale e Diritti Umani*, 2019, p.923 ss.

<sup>124</sup> Pursuant to article 8 of the ECHR.

<sup>125</sup> Pursuant to article 14 of the ECHR.

by article 54 of the Charter in terms of abuse aimed at the destruction of any of the rights and freedoms.

### 3.1. The “freedom” in healthcare measures

Generally speaking, referring to a virus spread fight, many concerns about the respect fundamental rights and freedoms have been arisen both in the ordinary annual campaigns to prevent influenza, and to extraordinary circumstances (such as SARS-associated coronavirus or COVID-19 spread), and the debate on the mandatory vaccination policy is still open, in many Countries. For what the ordinary prevention concerns - for example referring to Italy - the conflict arouse around the “Urgent provisions on vaccine prevention” (Law Decree 7 June 2017, n. 73, modified by the conversion law 31 July 2017, n. 119), which led to 10 mandatory vaccines, introducing among the sanctions, also the prohibition for unvaccinated minors, to be able to access schools and therefore to benefit from the foreseen education and training foreseen by law. Indeed, for a long time<sup>126</sup>, in practice, no such sanction was in reality provided and then applied: so, the debate arouse around the conflict of the 2017 Law and article 32 of the Italian Constitution, which on the one hand, protects health as a fundamental right of the individual and a collective interest (even, guaranteeing and providing free care to the indigent); and on the other one, also stating that “no one can be forced to a specific medical treatment unless required by law”. This form of guaranteeing personal freedoms has been as well as the subject of debate and American jurisprudence: in fact, in the USA, in the time of SARS-associated coronavirus spread, a federal court upheld an arbitrator’s decision that a hospital could not implement a mandatory influenza vaccination policy under its collective bargaining agreement with nurses. At the basis of this dispute there are numerous exceptions (such as religious belief, medical contraindication, or failure to provide consent, etc.)<sup>127</sup> which very often become the subject of specific evaluations on individual cases, and/or become an integral part of the “balancing of interests” assessment process<sup>128</sup>.

In the specific situation of the time of a pandemic, in any case of certainty or suspicion of infection, any movement of citizens can be forbidden, and subjecting either to isolation or to mandatory/precautionary quarantine. Such measures of “social isolation”<sup>129</sup> were in the past widely used in during the SARS outbreaks<sup>130</sup>, as they currently are, during the emergency from COVID-19 in the various countries involved.

The disposition of *quarantine*<sup>131</sup> is commensurate with threats of uncertain origin, magnitude, and risk of the pandemic itself, given the obvious liberty interests implicated

<sup>126</sup> In Italy, there were four formally mandatory vaccinations (antidifterica by Law of 6 June 1939 n. 891 and Law of 27 April 1981 n. 166; tetanus by Law of March 20, 1968 n. 419); antipoliomyelitica by Law of February 4, 1966 n. 51; antihepatitevirale B by Law No. 165 of 27 May 1991).

<sup>127</sup> It is worth emphasising that all of these recall the “special data” category as defined pursuant at article 9 of the Regulation (EU) 2016/679.

<sup>128</sup> As reported and according to L. GOSTIN, *Public Health Strategies*, cit.

<sup>129</sup> Even concerning an entire geographic area, i.e. the so called “*cordon sanitaire*”.

<sup>130</sup> According to L. GOSTIN, *ivi*.

<sup>131</sup> Which is defined as “the separation and restriction of movement of persons who, while not yet ill, have been exposed to an infectious agent and therefore may become infectious”. Referring to what reported by M. A. DAUBERT, *Pandemic Fears*, cit., quarantine is an early form of preventive medicine adopted and expanded upon in dealing with the bubonic plague during the Middle Ages. A significant event to remember occurred

when individuals are involuntarily confined<sup>132</sup>. In addition, during both SARS and COVID-19, Governments and Authorities imposed quarantine, introducing long distance surveillance based on ICT and Artificial Intelligence devices, adding privacy concerns to previously mentioned.

Enforcement and assurance of population safety remain critically important but sometimes unanswered questions, about the most complex, legal and ethical controversial public health powers<sup>133</sup>. Indeed, these restrictive measures, despite having an objective efficacy in the health sector<sup>134</sup>, require rigorous safeguards, since by their nature conflict the right of the individual person with collective interests<sup>135</sup>.

«As with all public health interventions, containment requires public trust and acceptance in accordance with the principles of justice»<sup>136</sup>. Thus, in such cases, a Government - in order to be transparent, clear and constitutionally compliant, and then to demonstrate the legitimacy of the approach - should guarantee the proportionality between the width of such measures (in terms of number and geographic scope) and public health threat, both adopting assessment criteria based on risk and fair procedures, and being supported by clinical evidence, factual and/or scientific data<sup>137</sup>. «The principle of legality is respected within the limits in which the norm attributes power and determines the primary interest, that of typicality can be derogated only in the eventuality that exceptional circumstances occur, which cannot be addressed and resolved through the exercise of skills and ordinary administrative powers, characterized precisely by contingency and urgency»<sup>138</sup>.

### 3.2. *European focus on the relationship between Artificial Intelligence and Human Rights*

It is worth emphasizing that COVID-19 pandemic highlighted how human rights and public health are not an alternative, or can be made either/or choice<sup>139</sup>. This statement finds its meaning, firstly, in the impact on people: the wide-ranging measures adopted by WHO and Governments to control the virus spread were unthinkable; but above all, they have changed daily life in several ways both proportionally to the evolution of the disease, and the consequently to the changing of both global and local circumstances. In fact, although fundamental rights and freedoms can be classified into different homogeneous

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in Venice in 1348, when the Serenissima Republic in an attempt to protect the population and its commercial activity from the plague, introduced systematic procedures to deal with infected ships, travellers, and merchandise. As well in the American history, quarantine was a legal social instrument used by Colonists, firstly locally and directed toward disease which entered by sea, for example, by the maritime quarantine enacted by the Massachusetts Bay Colony in 1647 against Barbados. Then, in 1796, Congress approved the first federal quarantine statute that authorized the President to assist in state quarantine.

<sup>132</sup> M. A. DAUBERT, *ivi*.

<sup>133</sup> According to L. GOSTIN, *ivi*.

<sup>134</sup> Both in preventing the spread of a virus and in its contrast.

<sup>135</sup> It is adequate to recall, once again, the principle of balancing of interests; and as well adding that several Member States have postponed non-urgent surgical interventions, giving priority to tackling the spread of virus. It should be emphasized that this may present some risks both to patients suffering from other illnesses, and to the right to equal access to healthcare enshrined in article 35 of the Charter of Fundamental Rights of the European Union. See also, THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.

<sup>136</sup> L. GOSTIN, *ivi*.

<sup>137</sup> M. A. DAUBERT, *Pandemic Fears*, cit.

<sup>138</sup> G. TROPEA, *Il Covid-19, lo Stato*, cit.

<sup>139</sup> See THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *ivi*.

groups, both the decision-making process of governments and the perception of people itself, do not find a clear line of demarcation, since they are closely interrelated. The direct interaction is much more marked and evident, for example, through the *personal data*<sup>140</sup> processing and Artificial Intelligence perspectives<sup>141</sup>.

Indeed, although these pertain directly the *right to data protection*<sup>142</sup>, it is clear and common opinion how they actually concern more widely the respect for the dignity of the person<sup>143</sup>, and respect for one's private and family life, home and communications<sup>144</sup>. Precisely within the overall framework of communication (even more so, if global), the close parallel between technological evolution and data processing, moreover, also recalls the possibility of expressing one's sociality<sup>145</sup> and liberty<sup>146</sup>, including also the right of thought<sup>147</sup> and expression and information<sup>148</sup> (which are closely connected and correlated as the latter concerns *inter alia* opinions and ideas). In the light of what above argued, it is appropriate to highlight how quite almost authors and Institutions agree that a great concern is given by the Artificial Intelligence applications and large use of Big Data, as their use exposes the citizen (often, unaware) to several risks<sup>149</sup>, in particular when affecting dignity, personal *identity*, rights and freedoms<sup>150</sup>.

The attention to the respect of fundamental rights in the light of technological progress is so high, so much so that all the European Institutions have taken a clear position. The Council of Europe, in 2017, implemented the Guidelines on the Protection

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<sup>140</sup> According to article 4.1 of Regulation (EU) 2016/679, personal data is defined as any information relating to an identified or identifiable natural person.

<sup>141</sup> Since Artificial Intelligence in all its applications, is based on large scale data processing, thanks to algorithmic logics: these automated techniques allow to calculate “the best” solution in a short time, predicting possible future scenarios, with a lower error rates compared to human beings.

<sup>142</sup> *e.g.*, referring to article 8 of the Charter of Fundamental Rights of the European Union.

<sup>143</sup> *e.g.*, referring to article 1 of Universal Declaration of Human Rights; to article 1 of the Charter of Fundamental Rights of the European Union, and to article 3 of the Italian Constitution.

<sup>144</sup> *e.g.*, referring to article 12 of Universal Declaration of Human Rights; article 7 of the Charter of Fundamental Rights of the European Union; to article 8 of the European Convention on Human Rights (ECHR); to article 13 of the Italian Constitution.

<sup>145</sup> *e.g.*, referring to articles 2-4 of the Italian Constitution.

<sup>146</sup> *e.g.*, referring to article 3 of Universal Declaration of Human Rights; to article 6 of the Charter of Fundamental Rights of the European Union; to article 5 of the European Convention on Human Rights (ECHR); to article 13 of the Italian Constitution.

<sup>147</sup> *e.g.*, referring to article 18 of Universal Declaration of Human Rights; to article 10 of the Charter of Fundamental Rights of the European Union, and to article 9 of the European Convention on Human Rights (ECHR).

<sup>148</sup> *e.g.*, referring to article 19 of Universal Declaration of Human Rights; to article 11 of the Charter of Fundamental Rights of the European Union, and to article 10 of the European Convention on Human Rights (ECHR).

<sup>149</sup> Due to “total automation”, to high quality and quantity of personal data, and the consequent misuse of these, especially in business fields.

<sup>150</sup> Although, for completeness, it is worth adding that in a wider and a more extensive meaning, the several ICT's and AI's applications allow sociality (mainly, thanks to the use of the most popular Online Social Networks, emails, and other video communication methods), reducing the impact on the freedom of movement and of residence, (*e.g.* referring to article 13 of Universal Declaration of Human Rights; to article 45 of the Charter of Fundamental Rights of the European Union; to article 2 Protocol 4 to the ECHR; to article 16 of the Italian Constitution) especially in time of physical and social distancing measures.

of Individuals with regard to the Processing of Personal Data in a World of Big Data<sup>151</sup> providing a general framework to apply appropriate policies and measures to make effective the principles and provisions of “Convention 108” in the context of Big Data. In 2018, the European Commission disclosed a communication on legal, social and economic evolution of Artificial Intelligence, highlighting the importance of the relationship between the natural evolution of Artificial Intelligence technology and fundamental rights: «the approach to AI described in this document shows the way forward and highlights the need to join forces at European level, to ensure that all Europeans are part of the digital transformation, that adequate resources are devoted to AI and that the Union’s values and fundamental rights are at the forefront of the AI landscape»<sup>152</sup>. At the meantime, the Council of Europe commissioned a “Study on the human rights dimensions of automated data processing techniques (in particular algorithms) and possible regulatory implications”<sup>153</sup>: the results of this research are the identification of those concerns related to algorithmic decision-making, which has implications for human rights. Furthermore, in 2019, European Parliamentary Research Service released a document<sup>154</sup> on algorithmic accountability and transparency, highlighting a general and widespread lack of transparency which risks to undermine a meaningful scrutiny and accountability, and on the other hand, giving some guidelines and policy, to better govern them. Finally, in 2020 the European Commission issued the “White Paper on Artificial Intelligence”<sup>155</sup> describing the coordinated approach on the human and ethical implications of Artificial Intelligence.

#### 4. “Privacy” as a fundamental right

Undoubtedly, many concerns have emerged about exposure to the risk of an invasion of privacy, and on individual freedoms: in particular, for all surveillance-related activities carried out through the extensive use of Artificial Intelligence, to detect and monitor the evolution of the COVID-19 pandemic.

Both all EU Data Protection Authorities (DPAs) and The European Union Agency for Fundamental Rights converge on the opinion that the rights to health and to the protection of personal data go *hand-in-hand*, underlining that any of these measures could infringe even the rights to private life<sup>156</sup>.

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<sup>151</sup> Which have been drafted on the basis of the principles of Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (CETS 108, or “Convention 108”), in the light of its ongoing process of modernisation.

<sup>152</sup> See EUROPEAN COMMISSION, *Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions on Artificial Intelligence for Europe*, Brussels, 25 April 2018

<sup>153</sup> COUNCIL OF EUROPE, *Study on the human rights dimensions of automated data processing techniques (in particular algorithms) and possible regulatory implications*, Brussel, 2018.

<sup>154</sup> EUROPEAN PARLIAMENTARY RESEARCH SERVICE, *A governance framework for algorithmic accountability and transparency*, Brussel, 2019.

<sup>155</sup> EUROPEAN COMMISSION, *White Paper On Artificial Intelligence - A European approach to excellence and trust*, Brussels, 2020.

<sup>156</sup> THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.

Moreover, both Government and private companies (on behalf of the first ones) collect health information and personal data<sup>157</sup> from various sources, concerning different categories of data-subjects<sup>158</sup> (such as patients, travellers, and other vulnerable populations): often, this configures large scale data processing of “special” categories<sup>159</sup>, which is considered particularly risky<sup>160</sup>. «The transnational law requires a careful balance between public health benefits and free trade, travel, and respect for the rights to privacy, association, and liberty»<sup>161</sup>. As above argued about the “balancing of interests” principle, even in data processing any kind of derogations to laws has to be motivate as “necessary” (for example in the aims to obtain high-quality surveillance data), but always in accordance with fair information practices. Indeed, a debate on compliance with data protection legislation applied to Artificial Intelligence is still open and, as global legislation is not homogeneous<sup>162</sup>, it is appropriate to refer to some principles and definitions<sup>163</sup> to provide, at least, a framework.

First of all, the Regulation (EU) 2016/679<sup>164</sup> states that «the processing of personal data should be designed to serve mankind», thus providing a *human-centric dimension*, to all its applications. Therefore, personal data processing is enlisted among the fundamental rights of the human person to be protected and guaranteed<sup>165</sup>, since it concerns to *privacy sphere* (and its individual freedoms, like private and family life, home, communications, etc.) and “*identity*” (*i.e.*, referring to individuality, personality, personal or individual existence)<sup>166</sup>. Nevertheless, the right to the protection of personal data is not an absolute right, and it must be considered in relation to its function in society and be balanced against other fundamental rights, in accordance with the principle of proportionality<sup>167</sup>. But it should be noted that «while confirming the flexibility of the data protection legal framework, the

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<sup>157</sup> See the given definition according to article 4.1 of Regulation (EU) 2016/679, and also the related human rights and freedoms, above reported.

<sup>158</sup> Pursuant to article 2.1 of Regulation (EU) 2016/679, it is defined as an identifiable natural person “who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person”.

<sup>159</sup> Pursuant to article 9 of the Regulation (EU) 2016/679, this category includes personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person’s sex life or sexual orientation.

<sup>160</sup> Pursuant to Article 35 of the Regulation (EU) 2016/679, this processing, in particular using new technologies, is subjected to an impact assessment on data protection (DPIA). Furthermore, should the result of the latter be in a “high risk”, in the absence of adequate mitigation measures, pursuant to article 36 of the mentioned Regulation, it is provided to consult the national supervisory authority prior to processing.

<sup>161</sup> L. GOSTIN, *Public Health Strategies*, cit.

<sup>162</sup> See also, INDEPENDENT HIGH-LEVEL EXPERT GROUP ON ARTIFICIAL INTELLIGENCE, *Ethics guidelines for trustworthy AI*, Brussels, 2019; A. PIN, *Le chances dell’intelligenza artificiale dati, sistemi sanitari, etica: uno sguardo giuridico al dopo-covid.19*, in *Italian Health Policy Brief*, 2020, p. 2 s.

<sup>163</sup> Mainly taken from the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation, GDPR).

<sup>164</sup> Pursuant to recital 4.

<sup>165</sup> Pursuant to article 8 of the Charter of Fundamental Rights of the European Union.

<sup>166</sup> R.E. RODRIGUES, *Revisiting the legal regulation of digital identity in the light of global implementation and local difference*, Edinburgh, 2011.

<sup>167</sup> Pursuant to recital 4 of Regulation (EU) 2016/679.

EDPS<sup>168</sup> recalled the principles that must apply to ensure efficient and legally compliant data processing»<sup>169</sup>.

The European Data Protection Regulation provides some specific legitimate cases of processing notwithstanding ordinary provisions<sup>170</sup>, such as the protection of the vital interest of a natural person and/or when necessary for humanitarian purposes, including for the monitoring epidemics and their spread or in situations of humanitarian emergencies<sup>171</sup>. Only in such circumstances, some of the envisaged rights could be limited, although in the respect of the requirements set out in the Charter and in the European Convention for the Protection of Human Rights and Fundamental Freedoms<sup>172</sup>.

One more time, it is adequate to notice that - even in this field - the application of the “balancing of interests” principle is required as provided by Regulation (EU) 2016/679<sup>173</sup>, which is not so different in aims, methodology and contents than the general application, as above described. Finally, it is proper to emphasise that any derogations to laws and flexibility in its applications are directly related to an extraordinary circumstance. «The right to privacy, even in its digital form of data protection, is subject to limitations in the face of a collective interest, a greater reason in this dramatic phase. The balance between individual and collective rights is enshrined in the Constitution. [...] But derogations must not become a point of no return»<sup>174</sup>.

#### 4.1. In itinere *data processing*

The goal to reduce the impact on rights and freedom to the minimum extent can be achieved, in the respect of the general principle to keep data «confidential and processed anonymously as required by national law»<sup>175</sup> provided both by the Regulation and the IHR, then by adopting some technical solutions, commonly implemented in data processing.

<sup>168</sup> The European Data Protection Supervisor (EDPS) is the European Union’s independent Data Protection Authority.

<sup>169</sup> THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.; the same position was declared by THE EUROPEAN DATA PROTECTION BOARD, *Guidelines 04/2020 on the use of location data and contact tracing tools in the context of the COVID-19 outbreak*, 21 April 2020.

<sup>170</sup> For example, the Regulation pursuant to article 4 provides, that any data processing is lawful only if data subject withdraw an expressed, freely given and specific consent), priorly being informed of the purposes, the categories of recipients to whom data can be disclosed, times, modalities and techniques of the storage and processing, including, profiling, and all the exercisable rights (according to articles 5, 12 and 13).

<sup>171</sup> Pursuant to recital 46, articles 6 and 9 of Regulation (EU) 2016/679. For completeness, according to L. GOSTIN, *Public Health Strategies*, cit., similar exceptions are provided in the United States.

<sup>172</sup> Pursuant to recital 73 of Regulation (EU) 2016/679; to article 52 of the Charter of Fundamental Rights of the European Union; and to article 15 of the European Convention on Human Rights.

<sup>173</sup> Pursuant to recitals n.47, 69, 113 and article 6 of Regulation (EU) 2016/679.

<sup>174</sup> According to the president of the Italian Data Protection Authority in P. RUSSO, *Intervista con Antonello Soro, Presidente del Garante per la protezione dei dati personali*, in *La Stampa*, 25 March 2020. Furthermore it should be noted that, in Italy, the Head of the Department of Civil Protection on February 3, 2020, issued the order n.630 (issued pursuant to articles 7 and 25 paragraph 1, Legislative Decree 1/2018, and after receiving a positive opinion from the Italian Data Protection Authority), in which among the various provisions relating to the management of the health emergency, authorizes at article 5 the processing of data in derogation of the ordinary provisions of the law. This order should be even assessed in the light of THE EUROPEAN DATA PROTECTION BOARD, *Statement on the processing*, cit. in which it confirms that the GDPR allows competent public health authorities and employers to process personal data in the context of an epidemic, in accordance with national law and within the conditions set therein.

<sup>175</sup> See also L. GOSTIN, *Public Health Strategies*, cit.



First of all, by limiting the collection and the consequent processing only to what is relevant and strictly necessary in relation to the purposes (*data minimisation*)<sup>176</sup>. In this context, an issue regards the permissibility<sup>177</sup> of employers disclosing the health data<sup>178</sup> of some employees to other staff members<sup>179</sup>.

Moreover, referring to such provisions to monitoring the gatherings and people movements, a possible solution is in implementing additional measures such as *pseudonymisation*<sup>180</sup>. «The exchange and, before that, the collection of data should take place in the least invasive way possible for the interested parties, favouring the use of pseudonymised data (if not even anonymous), resorting to re-identification where there is such a need, for example to contact the potentially infected individuals»<sup>181</sup>.

#### 4.2. Automated surveillance and contact tracing

As a complementary measure to the health ones, several Countries started to develop dedicated mobile phone applications (apps) to track, collect and assess data from individuals' mobile devices or use geolocation technologies, and a debate has opened up on both concerning the appropriate legal framework and the impact on fundamental rights of these measures<sup>182</sup>.

<sup>176</sup> Pursuant to article 5.1.a of Regulation (EU) 2016/679

<sup>177</sup> As a matter of facts, the Italian Data Protection Authority, on 2 March 2020 called on to comply strictly with the instructions provided by the Ministry of Health and the competent institutions to prevent the spread of the Coronavirus without undertaking autonomous initiatives aimed at the collection of data also on the health of users and workers where such initiatives are not regulated by the law or ordered by the competent bodies. Some indications about sensitive personal data processing are also mentioned in the “*Protocollo condiviso di regolazione delle misure per il contrasto e il contenimento della diffusione del virus Covid-19 negli ambienti di lavoro*” signed (in the first instance on March 14, 2020 and subsequently updated on April 24, 2020) by the social parties and the representatives of the productive categories, at the invitation of the President of the Council of Ministers, the Minister of Economy, the Minister of Labor and Social Policies, the Minister of Economic Development and the Minister of Health. The aforementioned protocol, however, given the generality of the same with respect to the specific subject of data processing, may not be considered sufficient to be considered an adequate legitimate base, in accordance with the provisions of European legislation. See E. DAGNINO, *La tutela della privacy ai tempi del coronavirus: profili giuslavoristici*, in *Giustizia Civile.com*, 2020, p.6 ss. Furthermore, it should be noted that in many Countries, including Italy, the disclosure of sensitive information is possible only on a voluntarily base, although some doubts about lawfulness and effectiveness still remain, considering the subordinate employment relationship and the consequent reverential fear, that would make this consent no longer freely expressed, as required by art. 4.10 of Regulation (EU) 2016/679.

<sup>178</sup> Either using technological devices (such as contactless body temperature sensors) or filling in a questionnaire on experiences of symptoms or collecting information on employees' recent travel or contact with confirmed sufferers, etc.

<sup>179</sup> THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.

<sup>180</sup> Pseudonymisation is defined by article 4.5 of Regulation (EU) 2016/679 as “the processing of personal data in such a manner that the personal data can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organisational measures to ensure that the personal data are not attributed to an identified or identifiable natural person”. Nevertheless, it is worth adding that according to L. ROCHER, J. M. HENDRICKX, Y. DE MONTJOYE, *Estimating the success of re-identifications in incomplete datasets using generative models*, in *Nature Communications*, 2019, the results of their mathematical research «suggest that even heavily sampled anonymized datasets are unlikely to satisfy the modern standards for anonymization set forth by GDPR and seriously challenge the technical and legal adequacy of the de-identification release-and-forget model».

<sup>181</sup> A. IANNUZZI, *Intervista con Antonello Soro, Presidente del Garante per la protezione dei dati personali*, in *La Repubblica*, 26 March 2020.

<sup>182</sup> See also THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.

The European Data Protection Board emphasized that, in the fight to COVID-19, data and technology (i.e., ICT, Artificial Intelligence and Internet of Things devices) should be used to empower, rather than to control, stigmatise, or repress individuals, since they have intrinsic limitations and can merely leverage the effectiveness of other public health measures, becoming part of a comprehensive public health strategy<sup>183</sup>. For these reasons, the Board issued some guidelines, both to clarify what are the conditions and principles for the proportionate use of *location data* and *contact tracing* tools; and to delimit only to two specific purposes. For what the using *location data* concerns, it is to support the response to the pandemic by modelling the spread of the virus, so as to assess the overall effectiveness of confinement measures; while “*contact tracing*” should aim to notify individuals of the fact that they have been in close proximity of someone who is eventually confirmed to be a carrier of the virus, in order to break the contamination chains as early as possible. Furthermore, «in this regard, the EDPB has already taken position on the fact that the use of contact tracing applications should be voluntary and should not rely on tracing individual movements but rather on proximity information regarding users»<sup>184</sup>.

The Italian Data Protection Authority, on the one hand, affirmed<sup>185</sup> that these technological solutions pursue an objective that lies within the scope of the solidarity element inherent in the right to health (considered as a societal interest, which has been highlighted by the Constitutional Court in their decisions on mandatory vaccination); on the other hand, it pointed out that a wide gamut of measures can be envisaged should be implemented a stepwise approach, and accordingly determine whether less intrusive measures can be enough for the purposes of epidemiological prevention, considering that the possible acquisition of genuinely anonymised mobility patterns raises no specific issues. «This approach allows mapping, for instance, the development of the epidemics, which is highly helpful for prognosis and statistics, whilst it is less so for diagnostic purposes as such»<sup>186</sup>.

<sup>183</sup> THE EUROPEAN DATA PROTECTION BOARD, *Guidelines 04/2020*, cit.

<sup>184</sup> THE EUROPEAN DATA PROTECTION BOARD, *ivi*. It should be noted that these are fundamental since Data Controllers are called to carry out a Data Protection Impact Assessment (DPIA) before implementing such tools as the processing is considered likely high risk. This methodology is similar to the balancing of interests principle.

<sup>185</sup> Hearing at the Committee IX “Transportation, Post, Telecommunications” of the Italian Chamber of Deputies (April 8th, 2020); see also ITALIAN DATA PROTECTION AUTHORITY, *web-document n.9308774*.

<sup>186</sup> THE EUROPEAN DATA PROTECTION BOARD, *ivi*: reports that «location data collected from electronic communication providers may only be processed within the remits of articles 6 and 9 of the ePrivacy Directive. This means that these data can only be transmitted to authorities or other third parties if they have been anonymised by the provider or, for data indicating the geographic position of the terminal equipment of a user, which are not traffic data, with the prior consent of the users». Furthermore, concerning the use of using non-anonymised data on location or interactions with other devices, it may be proved helpful in many ways, but it would require - pursuant both to Regulation (EU) 2016/679 and to article 15 of the e-Privacy Directive - sufficiently detailed rules including adequate safeguards. With specific reference to the Italian legislative framework, the Italian Data Protection Authority, emphasized that «it would be desirable to introduce specific legislation in this respect, partly because the legal basis referred to currently mentions requirements linked to territorial surveillance for purposes of public security, fight against terrorism and organised crime - which cannot be equated in full to those at issue here (see Section 5(3-e) of decree-law No 7/2015 as enacted, with amendments, by Law No 43/2015 and subsequently amended by decree-law No 113/2018 enacted with amendments by Law No 132/2018». Indeed, the extraordinary powers concerning each type of derogation must be regulated by a rule of adequate rank, in order to provide the right constitutional guarantees; in addition, these acts should be detailed, precise and limited (over time and in ways), in order to mitigate the resulting risk exposures and take into account all the in itinere and ex post

Especially the contact tracing apps raise further specific concerns about respect for individual rights. Firstly, if the use is voluntary by individual citizens, a low percentage of users<sup>187</sup> would render its effectiveness in vain: consequently, if the moral suasion and the sense of individual responsibility are not sufficient, the possible risk is that Governments may adopt different limitation measures (for those who use the app and those who do not), and possible forms of unequal treatment<sup>188</sup> may arise. In addition, these apps are based on Bluetooth technology, to allow the device to interact with others, with the need to leave it constantly on<sup>189</sup>: this is a technological and at the same legal issue, as both personal data also other information are recorded in each personal device. Indeed, «the risk to the rights and freedoms of natural persons, of varying likelihood and severity, may result from personal data processing which could lead to physical, material or non-material damage, in particular: where the processing may give rise to discrimination, identity theft or fraud, financial loss, damage to the reputation, loss of confidentiality of personal data»<sup>190</sup>.

For completeness: it is worth adding that - with a view to be able to enter the so-called “phase 2” (i.e., the *inter-pandemic* one) - in Italy, on 17 April 2020, the Extraordinary Commissioner for Emergency<sup>191</sup> selected and chose the technological solution for tracking and monitoring the spread of COVID-2<sup>192</sup>. The “*Immun?*” app<sup>193</sup> is based on the same system on which Apple and Google<sup>194</sup> are working on, through the download on their smartphone and the use of Bluetooth technology to perform the contact tracing, without geolocation and in complete anonymity<sup>195</sup>, therefore it is *considered* a system deemed safe

phases of emergency management. To better clarify this concept, it seems appropriate to recall a statement by Judge Paulo Pinto de Albuquerque (in the separate opinion, joined by judge Tsotsoria, European Court of Human Rights, in the case of J. and others v. Austria, 2017) “a vague law is not a good law”.

<sup>187</sup> According to the Italian Ministry of Technological Innovation and Digitization the effectiveness of this measure can only be guaranteed if at least 60% of the population voluntarily installs and uses it.

<sup>188</sup> Considering that there are some particular groups of people, such as persons with disabilities, older, homeless, poor, etc., who cannot use or afford the costs of mobile devices, for different reasons. In contrast to, e.g., articles 21, 25, 26 of the Charter of Fundamental Rights of the European Union.

<sup>189</sup> This risk seems not to be clearly stated to citizens (who are often unaware of the technical aspects) concerns precisely the need to leave the Bluetooth constantly on, which is notoriously an “unsuitable” and dangerous behaviour. As a matter of facts, it is like leaving an “interactive door always open” to access to all data stored in the smartphone, favouring hackers to enter the device, copy its data, or worse still take control of it and all those with whom it comes into contact.

<sup>190</sup> Pursuant to recital 75 of the Regulation (EU) 2016/679.

<sup>191</sup> See the Provision n. 10/2020, in force of the delegation of the Presidency of the Council of Ministers.

<sup>192</sup> This app not only does not replace any tests or medical checks, but - asking for strong collaboration from citizens - it is an additional “weapon” to combat the coronavirus.

<sup>193</sup> It has been developed by the Milanese software house Bending Spoons, and in relation to the contract stipulated with the Government provides for the free transfer of the user license, therefore, without costs for the community. It has to be noticed that, previously, on 31 March 2020, the Lombardy Region made available an app that collects, on a voluntary basis, the data collected by citizens in order to allow virologists and epidemiologists to build an infection risk map, anonymously and therefore only for purposes of statisticians.

<sup>194</sup> Many doubts and concerns have arisen in the news (10 April 2020) that the two Tech Giant Google and Apple have released a platform for “contact tracing”, precisely because of the implications with privacy (i.e., real extent and purposes of data processing): this platform, in fact, can be used on smartphones (made for both the IOS and Android operating systems), providing free services and features to governments and health authorities who request them.

<sup>195</sup> According to the Italian Data Protection Authority referring to the implementation of contact tracing apps emphasized that «the communication between central server and apps of potentially infected individuals would also take place without enabling their re-identification and thus minimize the impact on their privacy». See also the considerations above reported.

and reliable, and also declared as compliant with regards to “privacy” and data protection laws.

#### 4.3. Ex post *data processing*

Undoubtedly, as already discussed above, these issues concern the *ex post* situation, that is from the moment in which the “emergency phase” will be declared concluded<sup>196</sup>. In the so called “*post-pandemic* period”, the major concern regards the use of data for ordinary processing: the impact on fundamental rights and freedoms might be wider (in terms of consequences for different areas of life) and potentially unlimited in time.

Firstly, “wider” since these data have been collected in force of extraordinary measures (and so derogating to laws, with less guarantee for data-subjects, in the light of a balancing of interests); then, independently whether these may or may not fall within the definition of *personal data*, a lot of “information” express preferences and habits, which belong on the one hand to the *sphere of privacy*, and on the other to that of *identity*.

On the other hand, the statement that the data-processing is potentially unlimited in time, is related as currently ICT systems are able to store all the information collected and exchanged, mainly through the Internet and Internet of Things (IoT) devices<sup>197</sup>. Therefore, there is a need for a clear guarantee that the treatment will actually end at the end of the emergency<sup>198</sup>, in accordance to the “principle of purpose” and with the declared period of data retention<sup>199</sup>. Indeed, data processing is submitted to “storage limitation”<sup>200</sup>, *i.e.* it should last for no longer time than is necessary to achieve the purposes contained in the information given at the time of the consent, or for those ones assessed during the above mentioned “balancing of interests”.

Finally, it is appropriate to highlight that the data processing has been carried out both by the public authorities (*lato sensu*) and by private companies (albeit on behalf of the Governments, as previously argued). Thus, the above-mentioned processing limitations must apply both to public authorities and - even more so - to private companies<sup>201</sup> involved

<sup>196</sup> *i.e.*, normalcy has been restored, and therefore an ordinary situation is returned.

<sup>197</sup> It should be noted that this is the principle which, on the one hand, led to the birth and is the basis of the Big Data concept, and on the other, to the introduction of the “right to be forgotten” within the Regulation (EU) 2016/679, at article 17. For a wider and appropriate depth study of Big Data see K. CUKIER, V. MAYER-SCHOENBERGER, *The Rise of Big Data: How it's Changing the Way We Think about the World*, in *Foreign Affairs*, 2013, p.28-40.

<sup>198</sup> See also A. PIN, *Le chances dell'intelligenza*, cit.

<sup>199</sup> Pursuant to article 15 of Regulation (EU) 2016/679, compliance with this “purpose principle” forms the basis of the rights of the data subject. Furthermore, article 25 of the mentioned Regulation clarifies and provides that the obligation to guarantee the processing of data, limiting it only to those personal data that are necessary for each specific purpose, defining the extension, the period of their conservation and their accessibility.

<sup>200</sup> Pursuant to article 5.1.e of Regulation (EU) 2016/679, personal data shall be kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the personal data are processed; personal data may be stored for longer periods insofar as the personal data will be processed solely for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes in accordance with article 89.1 subject to implementation of the appropriate technical and organisational measures required by this Regulation in order to safeguard the rights and freedoms of the data subject (storage limitation).

<sup>201</sup> The Italian Data Protection Authority, during the hearing at the Committee IX “Transportation, Post, Telecommunications” of the Italian Chamber of Deputies emphasized that in case of processing committed to private entities, the latter should meet suitable requirements in terms of reliability, transparency and

in data processing, in order to avoid the using the information collected<sup>202</sup> for *undeclared* different purposes<sup>203</sup>.

##### 5. Conclusions: when COVID-19 is over, the whole World will be in a new paradigm

The emergency of COVID-19, beyond to all the negative aspects<sup>204</sup> could turn into a great opportunity for *social progress*<sup>205</sup>, for example «to rethink the role of the state in regulating the creation of wealth and redistributing its benefits towards the universal realization of economic and social rights»<sup>206</sup>.

In this time, it became paramount to ensure that the measures taken to contain the virus spread, should be focused on cooperation among all Countries in fighting any *invisible enemy*, in favour to a more global agenda where humanity and global order are encouraged. Thus, an *invisible weapon* (the Artificial Intelligence, with a broader meaning) in the hands of *real people* can be useful, on the one hand, to contribute and support in the incessant researching activity of a vaccine and medical treatment in favour to patients; on the other one, Hi-Tech solutions can make a great contribution to guarantee respect for fundamental rights, also in favour of the weakest subjects. Some examples can be representative.

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controllability and compliance with such requirements should be verified carefully; see Italian Data Protection Authority, web-document n.9308774). Furthermore, referring in particular to “contact tracing apps”, the President of the Italian Authority affirmed that «in the complex chain in which “contact tracing” is divided, private entities - starting from the large platforms - should make the information assets available to the public authority, which should instead be reserved for the data analysis phase, which requires guarantees and responsibility from state bodies. In any case, the companies involved in this project should possess reliability and transparency of action requirements»; see A. IANNUZZI, *Interview with Antonello Soro*, cit.

<sup>202</sup> Which for their nature belong to the “special category” of personal data (pursuant article 9 of the Regulation EU 2016/679), has direct and indirect effects on the most “sensitive” sphere.

<sup>203</sup> Such as disclosures to employers, insurers, healthcare system and immigration or criminal justice authorities. See also L. GOSTIN, *Public Health Strategies*, cit.

<sup>204</sup> Indeed, it should be noted that the forecasted (but not expected) economic recession, would even impact on some of the most important human, political and social rights, as listed at articles 22, 23, 25, 26 of the Universal Declaration of Human Rights. According to I. SAIZ, *Rights in Recession? Challenges for Economic and Social Rights Enforcement in Times of Crisis*, in *Journal of Human Rights Practice*, 2009, p.277 ss.: «everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control». In other words, due both to the loss of employments and to the increase in poverty, it would oblige people not only to a lower quantity but above all to the quality of their diet (right to food); families can no longer afford the costs related to universities (including also to school), undermining the right to education; and furthermore, since many people will no longer be able to pay the loans, most of them would lose their apartments (right to housing); and so on. To this should be added a forecasted reduction in tax revenues, which will also impact on Welfare programs, mainly affecting the elderly, the sick and the unemployed. Unfortunately, this context is the ideal one where criminal organizations potentially strengthen, and the phenomenon of usury and criminal infiltration increases: in both cases, the effect on fundamental rights and personal freedoms is negative, as they would be compressed, if not cancelled. See also, THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.; A. PIROZZOLI, *Il diritto di accesso al cibo: una misura della dignità dell'uomo*, in *Ordine Internazionale e Diritti Umani*, 2019, p.492.

<sup>205</sup> It is worth quoting Albert Einstein, who affirmed that «the crisis is the greatest blessing for people and nations, because the crisis brings progress».

<sup>206</sup> I. SAIZ, *ivi*.

Indeed, due to massive job losses could cause an increase of social tensions and incidents<sup>207</sup> related to racism, discrimination, xenophobia and intolerance<sup>208</sup>, particularly towards foreign workers: then, the Anti-Discrimination Office of Styria (Austria) implemented the “*Ban Hate*” app, which allows to report in real-time and online hate speech<sup>209</sup>. Due to the restrictions and lockdown, all educational institutions (such as schools and universities) have been closed, and the only way not to suspend all their activities (and thus guarantee the right to education) has been to widespread use of online-learning, possible thanks to the Internet and most common video-conferencing applications. In the same way, how it was also possible to exercise the *right to religion*, thanks to both the celebrations in e-streaming, and through a wide use of OSNs<sup>210</sup>: the apps and ITC tools allowed to keep those community relationships alive (and therefore sociality), which characterized each religion differently.

For effective action towards such social progress, aiming at the protection and respect of human rights and freedoms, however both the specificity and the characteristics of the context must be taken into consideration simultaneously. Since the virus spread is borderless, every type of measure must be taken globally, and not only by each country: any “*patchy*” action would be useless.

So, a *synergic effort* should be addressed to achieve a common *trans-national-strategy*<sup>211</sup>, to reduce the fragmentation of legislation<sup>212</sup> on such important issues, which involve directly and indirectly fundamental rights and freedoms. Following the *fil rouge* of this paper, it was evident the lack of an international regulation on Artificial Intelligence and interoperability in the event of global emergencies<sup>213</sup>: this, in addition to the purely technological aspects, should be focused on “*human-centric approach*”<sup>214</sup>.

Artificial Intelligence should be oriented to «ensure that human values are central to the way in which Artificial Intelligence systems are developed, deployed, used and monitored, by ensuring respect for fundamental rights [...] rooted in respect for human dignity, in which the human being enjoy a unique and inalienable moral status»<sup>215</sup>. The EU

<sup>207</sup> Regarding some people of Asian descent faced xenophobic attacks worldwide due to the coronavirus pandemic, as also foreigners in China are also increasingly reporting incidents of hostility and discrimination. See THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *ivi*.

<sup>208</sup> e.g. referring to article 21 of the Charter of Fundamental Rights of the European Union.

<sup>209</sup> For a wider and appropriate depth study of hate speech, see L. MANCA, *Sul contrasto al racial hate speech nella prassi del Comitato delle Nazioni Unite per l'eliminazione della discriminazione razziale*, in *Ordine Internazionale e Diritti Umani*, 2018, p.457 ss..

<sup>210</sup> Like *Twitter*, *Instagram*, *Facebook*, *Zoom*, *Whatsapp*, etc., both with positive help from young people (*digital natives*) in favour of older ones (*digital immigrants*).

<sup>211</sup> António Guterres, Secretary-General of the United Nations, during G-20 virtual summit on March 26th 2020, affirmed that «only by coming together will the world be able to face down the COVID-19 pandemic and its shattering consequences».

<sup>212</sup> In the context of the digital dimension and Artificial Intelligence (*lato sensu*), the globalization process is currently at such a stage whereby the relationships between countries and the different legislative frameworks have the characteristic of simply being the “sum of several and different individual positions”, lacking a homogenization, if not at least coordination. For example, a reference model could be borrowed from the United Nations, with the World Health Organisation for the health sector.

<sup>213</sup> Or, alternatively of a clear set of general and common international standards and guidelines, concerning ethics issues, transparency, rules of sharing and access and quality of data, etc.

<sup>214</sup> The new paradigm is in the new relationship between Artificial Intelligence and the “human person”, aimed at respecting his dignity, in all its daily forms, as a declination of the respect of fundamental rights and freedoms, privacy and lawful data processing.

<sup>215</sup> INDEPENDENT HIGH-LEVEL EXPERT GROUP ON ARTIFICIAL INTELLIGENCE, *Ethics guidelines*, cit.

Commission's political Guidelines for the 2019-2024 mandate had already confirmed this approach are focused on a coordinated European action on the human and ethical implications of Artificial Intelligence, as well as a reflection on the better use of Big Data for innovation, with a twin objective: promoting the uptake of Artificial Intelligence, and addressing the risks associated with certain uses of this new technology<sup>216</sup>. The «Union-level approach can facilitate development by avoiding fragmentation in the internal market and at the same time underlines the importance of the principle of mutual recognition in the cross-border use of robots and robotic systems»<sup>217</sup>, meaning and including any kind of Internet of Things (IoT) based on Artificial Intelligence (AI), Machine Learning (ML), and algorithms. It is worth emphasizing that any legislative act of the European Commission could have far wider effects than only on member states, as it happened by the adoption of the Regulation (EU) 2016/679<sup>218</sup>.

In this way, it would be easier not only to regulate arising ethical issues on Artificial Intelligence, and to share useful data across geographies to better cope with current and emerging threats, but also providing more protection to individual rights and freedom, economic stability, even removing fears on citizens<sup>219</sup>, whatever is the nationality or residence.

«Today, ethics and data protection are intertwined like never before and I observe an ever closer convergence between the two. Many issues related to ethics involve personal data; data protection authorities now face ethical questions that legal analysis alone cannot address. Ethics and the law each have an important role in our societies. Convergence allows us to put the human being, their experience and dignity at the centre of our deliberations»<sup>220</sup>.

Finally, it is always important to consider that social acceptance can diminish, if measures are perceived to be disproportionately intrusive to fundamental rights<sup>221</sup>.

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<sup>216</sup> U. VON DER LEYEN, *Political guidelines for the next European Commission 2019-2024*, Brussels, 2019.

<sup>217</sup> See EUROPEAN PARLIAMENT, *Resolution with recommendations to the Commission on Civil Law Rules on Robotics*, 16 February 2017

<sup>218</sup> One of the most important innovations introduced by Regulation (EU) 2016/679, is contained at article 3: the “territorial scope” is not only related to a geographical aspect, but it refers to all European citizens, independent of the physical location where is the treatment of the data. Simplifying, the final result is that every Data Controller and Data Processor in the world in processing personal data of a European citizen must comply with the European Regulation.

<sup>219</sup> Z. ALLAM, D. S. JONES, *On the Coronavirus*, cit.

<sup>220</sup> G. BUTTARELLI, *Towards a digital ethics*, EDPS Ethics Advisory Group - Report, Brussels, 2018

<sup>221</sup> THE EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS, *Coronavirus pandemic*, cit.