

# Digitalisation of Public Administration in Europe: An Introduction

Petra Lea Láncos

*Full professor of European Union law, Pázmány Péter Catholic University\**

## Abstract

Digitalisation promises promptness, accuracy, interoperability, and cost reduction, yet it also generates significant risks relating to privacy, non-discrimination, legitimacy, accountability, sunk costs and cybersecurity. Structuring the analysis along the Collingridge qualities of inclusion, openness, and reversibility, the paper follows the lines of inquiry of the 2024 RE-ALaw Young Researchers' Forum and focuses on the challenges of algorithmic decision-making (ADM), including biased datasets producing discriminatory outcomes, opacity in automated decision-making undermining the duty to give reasons, and limited access to effective remedies. It further demonstrates that existing EU legal frameworks, including the GDPR and the AI Act, provide fragmented and incomplete safeguards in the context of ADM. The paper argues that harmonised standards for transparency and contestability are essential to ensure that digitalisation contributes to, rather than erodes, good administration in the European Union.

## I. Introduction

On 7 November 2022, the online news website Telex published an article about a large-scale attack on and data leak from the Hungarian education management platform KRÉTA (*Public Education Registration and Study Database System*) that had taken place two months earlier. The platform runs on the state-owned National Info-communication Service's infrastructure and provides a comprehensive system for managing the data of students and schools all over the country. Although the GDPR foresees the data controllers' duty to report personal data breaches to their supervisory authority, the National Authority for Data Protection and Freedom of Information only learned of the incident from the Telex article—not from

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the government body operating the platform.<sup>1</sup> All data held by KRÉTA were leaked during the incident, including students' personal data such as grades, health insurance numbers, addresses, health data, disabilities, behaviour disorders and grading exemptions, school budgets and documents, as well as teachers' personal data. As such, due to its cybersecurity deficiencies, the innovative digital one-stop-shop system facilitating the efficient management of education administration processes became a threat to personal and institutional privacy, allowing for, among other things, the profiling of minors based on the data leaked. More than a year later, the National Authority for Data Protection and Freedom of Information imposed a 110 million Forint fine on the company developing KRÉTA, for failure to ensure adequate data protection.<sup>2</sup>

This incident is just one among many that arose in the wake of disruptive digital technologies, which are changing the face of public administration throughout Europe and beyond. Their emergence and rapid development are facilitated by incremental technological development and the ensuing information society, and explained by the growing volume of public databases and standardized public administrative procedures, with states looking for efficiency gains.<sup>3</sup> Consequently, the digitalisation of public administration has been on the agenda of the European Member States for over a decade now, with the aim of rendering public administration services more efficient and interoperable. Digitalisation may speed up administrative procedures while cutting personnel and storage costs at a time when governments are scrambling to spare public resources. It also lays the context for the interoperability of administrative registers holding personal and other data, which is crucial for the operation of one-stop-shop administration. The resulting e-administration provides accessibility for residents living in remote areas, while ensuring the necessary context for remote working for administrative staff, guaranteeing the sound functioning of public administration also in times of crisis or emergency, such as war or a pandemic.<sup>4</sup> For example, as Savchenko et al show, the COVID-19 pandemic accelerated the digitalisation transformation in public administration,<sup>5</sup> and triggered

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1 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 (General Data Protection Regulation) [2016] OJ L 119/1, recital 85.

2 Hungarian National Authority for Data Protection and Freedom of Information (NAIH), Decision NAIH-1245-29/2023 (20 December 2023).

3 Péter Molnár, 'A digitális közigazgatás szabályozási kérdései' (2024) 2 *KözigazgatásTudomány* III, 112.

4 Renata Gabryelczyk, 'Has COVID-19 Accelerated Digital Transformation? Initial Lessons Learned for Public Administrations' (2020) 37(4) *Information Systems Management* 303.

5 Nataliia Savchenko and others, 'Digital Transformations of Public Administration in the Context of the COVID-19 Pandemic: EU Countries Case Study' (2024) 32(2) *European Review* 192, 199.

the “state in a smartphone” (*Diia platform*) strategy in Ukraine amidst the Russian aggression.<sup>6</sup>

Reflecting the role digitalisation plays in modern society, the 2022 European Declaration on Digital Rights and Principles for the Digital Decade issued by the European Parliament, Council and Commission already set forth in its Article 7 the right to online access to key public services in the EU through a voluntary and secure digital identity.<sup>7</sup> Just one year later, the Council of Europe’s Reykjavík Declaration shifted the focus to the need to mitigate the risks of new and emerging digital technologies on democracy and vulnerable groups, in particular, since their negative consequences are amplified through modern technology.<sup>8</sup> However, regulation to manage possible risks and enforcement to curb threats from a “Digital Leviathan” is slow to catch up, as illustrated by the *KRÉTA* case mentioned above.<sup>9</sup> Indeed, as Molnár points out, the digitalisation of public administration is a prime example of the Collingridge dilemma, described by the author in “The Social Control of Technology”.<sup>10</sup> According to this 1980 approach, emerging technologies have unpredictable consequences, yet they may yield societal benefits and their premature regulation could stifle development and access, compromising the positive outcomes that the technology would have brought about. Yet without regulation, society loses control over the technology, and once it becomes entrenched, subsequent regulation becomes costly or inefficient. Collingridge proposes that overcoming the problem of lack of information in the initial phase of introducing technology, regulatory “decisions made under ignorance” should be “highly corrigible; should involve the choice of systems which are easy to control; should keep future options open (...)”.<sup>11</sup> This approach was later expanded to involve stakeholders of innovation and refined by authors such as Genus and Stirling as ‘responsiveness’ in responsible research and innovation, involving engagement with technology along the principles of “inclusion, openness, diversity, incrementalism, flexibility and reversibility”, i.e. the so-called ‘Collingridge qualities’.<sup>12</sup>

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6 Mariana Gustafsson and others, ‘Adaptive Governance Amidst the War: Overcoming Challenges and Strengthening Collaborative Digital Service Provision in Ukraine’ (2025) 42(3) Government Information Quarterly <<https://doi.org/10.1016/j.giq.2025.102056>> accessed 19 January 2026.

7 European Declaration on Digital Rights and Principles for the Digital Decade [2023] OJ C 23/1.

8 Council of Europe, *United around our values—Reykjavík Declaration* (16–17 May 2023).

9 José Vida Fernández, ‘The Risk of Digitalisation: Transforming Government into a Digital Leviathan’ (2023) 30(1) *Indiana Journal of Global Legal Studies* 3.

10 David Collingridge, *The Social Control of Technology* (St Martin’s Press 1980).

11 *ibid.*, 32.

12 Audley Genus and Andy Stirling, ‘Collingridge and the Dilemma of Control: Towards Responsible and Accountable Innovation’ (2018) 47(1) *Research Policy* 61.

In the context of digitalisation of public administrations across Europe, currently on the European Commission's agenda,<sup>13</sup> the 2024 REALaw Young Researchers' Forum on 'The digitalisation of public administration in Europe' centred around EU and national requirements of digitalisation of public administration, with a special focus on general administrative law principles, data protection and threats of bias or discrimination. The proceedings of the Forum highlighted the lacunae in EU legislation regarding the right to remedy in the context of algorithmic (or automated) decision-making. The papers of this special issue contribute to the scholarship on digitalisation of administration, in the particular context of the European Union and its Member States. The authors address the definition and general problems of digitalisation (Bian), the loopholes in EU regulation governing algorithmic decision-making and their effects on data protection (Bakiasi, Habousha). They discuss the problems of transparency and accountability in respect of the use of AI in providing scientific advice informing EU administrative decisions (Leggio), the challenge of the opacity of ADM concerning the duty to give reasons (Lember) and the fragmentation of the supervision of personal data use in the Member States under the Data Governance Act, possibly jeopardizing data protection rights (Mustert, Tas). The papers included in this Special Issue identify and present outstanding challenges of digitalisation in specific policy contexts, such as migration, food safety regulation, face recognition, etc., shedding light on use case examples where regulatory loopholes continue to exist.

This paper understands the digitalisation of administration as encompassing the use of technology—including AI—in public administration, processing data collected and managed by public authorities, with a shift towards e-administration services involving ADM (algorithmic decision-making). It examines the challenges of a digitalised administration in the context of the right to good administration (Art. 41 Charter of Fundamental Rights), framing the current problem of the digitalisation of administration along the lines of the Collingridge qualities of 'inclusion', 'openness' and 'reversibility', based heavily, but not exclusively, on the papers of this Special Issue.

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<sup>13</sup> See: European Commission, *Enhancing the European Administrative Space* (2023, Publications Office of the European Union, Luxembourg) doi:10.2887/1559; European Commission, *Digital Transformation for Regional and Local Authorities: 2023 Flagship Technical Support Project* (2023, Publications Office of the European Union, Luxembourg).

## 2. Right to Good Administration in the Age of Digitalisation

Discussing the relationship between digitalisation and good administration principles, Chevalier and Menéndez Sebastian arrive at a definition of good administration as having the “double dimension” of ensuring efficient/effective administration and the protection of citizens’ administrative rights.<sup>14</sup>

The first dimension, i.e., efficiency/efficacy, speaks to the improvement of the quality of administration. This is achieved through the ‘promptness’ of administrative response, involving the expediting of processes through algorithmic decision making,<sup>15</sup> increasing the accuracy of such administrative response through analysing vast and interoperable datasets,<sup>16</sup> and reducing the budget burden of public administration by replacing human labour with digitalised processes.<sup>17</sup>

Boosting the efficiency and efficacy of administration through digitalisation, however, carries its own risks and challenges. For example, the exchange of data or interoperability of digital registers—including those managed or held by different administrative bodies—may be hampered by semantic<sup>18</sup> and technical challenges, but also legal requirements, such as data security and data protection within and between states.<sup>19</sup> Full interoperability may violate rights and interests, e.g., where data related to health and sexual preference becomes accessible across public administrations or even corporations, as illustrated by the Grindr scandal—with leaks and cyber-attacks becoming exacerbated in a broader context of interoperable registers.<sup>20</sup>

Uneven development of digitalisation, lack of access or monitoring can also be problematic. For example, the ‘Digital citizenship’ recently introduced in Hungary contains all licenses and identity cards of the citizen, allowing for elec-

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<sup>14</sup> Emilie Chevalier and Eva M Menéndez Sebastián, ‘Digitalisation and Good Administration Principles’ (2022) 3(1) *European Review of Digital Administration & Law* 5.

<sup>15</sup> Barbara Lazarotto, ‘The Role of Technology in Citizens’ Right to Good Administration’ in Jürgen Goossens, Esther Keymolen and Antonia Stanojević (eds), *Public Governance and Emerging Technologies* (Springer 2025) 43.

<sup>16</sup> Kristof Verslype and Petra De Decker, ‘Privacy-by-Design in the Belgian Public Sector’ in Jürgen Goossens, Esther Keymolen and Antonia Stanojević (eds), *Public Governance and Emerging Technologies* (Springer 2025) 106.

<sup>17</sup> Małgorzata Such-Pyrgiel, ‘Fourth Industrial Revolution, New Communication Technologies and the Human Right to Good Administration’ in Iwona Florek, Andrea Koroncziová and José Luis Zamora Manzano (eds), *Crisis as a Challenge for Human Rights* (Comenius University 2020) 447 <doi.org/10.13166/mng/100021> accessed 18 March 2026.

<sup>18</sup> Petra Lea Láncoš, ‘Linguistic Challenges of Interoperable Registers in the Context of E-Government Services’ in Petra Lea Láncoš, Zsófia Gerencsér and Katalin Balogh (eds), *Law and Language in the Human–Machine Era* (Pázmány Press 2024).

<sup>19</sup> see eg. Hartmut Aden, ‘Interoperability Between EU Policing and Migration Databases: Risks for Privacy’ (2020) 26(1) *European Public Law* 93.

<sup>20</sup> Aynne Kokas, ‘Grindr and the Data Corpus: Theorizing Consent in Data Localization’ (2022) *Proceedings of the 55th Hawaii International Conference on System Sciences* 2801.

tronic signatures, communication with public authorities and even the processing of payments. However, since the technical pace of digitalising the features pertaining to digital citizenship varies, citizens are unable to access the full array of digital citizenship functions, resulting in a mismatch between expectations and reality, with the idea of one-stop-shop administration being put to the test.

As far as accessibility is concerned, Article 7 of the European Declaration on Digital Rights and Principles for the Digital Decade sets forth that “Everyone should have online access to key public services in the EU.” Meanwhile, millions of union citizens lack digital literacy, digital hardware or connectivity, such as the older or poorer members of the population,<sup>21</sup> while minority language speakers may encounter difficulties in exercising their right to administrative services in a transformed, digital administrative environment. This may lead to disenfranchisement by having to rely on others to manage their affairs digitally, or even discrimination, for example, where digitally illiterate parents cannot communicate through digital school systems, with the result that typically children with a minority or immigrant background must repeat their grade.<sup>22</sup> In the context of the shift to digital education during the COVID-19 pandemic in Hungary, many Roma children were left behind—some due to a lack of digital literacy of parents and children, others due to a lack of digital hardware or internet connection, or both.<sup>23</sup> Another example is the above mentioned KRÉTA system, where communication between parents, teachers and headmasters takes place: if a parent lacks digital literacy and/or cannot communicate in the national language, exemptions, doctor’s notes may not be uploaded in the system, resulting in excessive missed classes of the child who will possibly have to repeat their grade.

Finally, remote work of administrative personnel may be monitored, with the potential to cause a violation of a reasonable expectation of privacy.<sup>24</sup>

The second dimension of good administration in the context of digitalisation is the safeguarding of citizens’ rights affected by administration, such as the rights to non-discrimination, privacy,<sup>25</sup> remedy, access to information, the duty to give reasons or even a possible “fundamental right to analogous life”,<sup>26</sup> i.e., a freedom from digital administration as a reaction to mandatory digital integration.

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<sup>21</sup> European Commission, ‘Digital Literacy in the EU: Overview’ <<https://data.europa.eu/en/publications/datastories/digital-literacy-eu-overview>> accessed 19 January 2026.

<sup>22</sup> Agnieszka Agata Tomaszewicz, ‘The Impact of Digital Literacy on E-Government Development’ (2015) 3(2) *Online Journal of Applied Knowledge Management* 45.

<sup>23</sup> See: Elek Huszti, ‘A digitális oktatás próbatétele halmozottan hátrányos helyzetű tanulók körében’ (2021) 12(33) *Acta Medicinæ et Sociologica* 160-18.

<sup>24</sup> *Copland v. UK*, ECHR Decision of 3 April 2007, No. 62617/00

<sup>25</sup> *Vida Fernández* (n 9), 3-13.

<sup>26</sup> Elias Wirth, “Digital Only” in *Administrative Procedures and Fundamental Rights: A German Perspective* (2025) 13(1) *Hungarian Yearbook of International Law and European Law* 267.

## 2.1. Inclusion

While data-driven ADM delivers benefits from economies of scale, processing speed and depth, it may also raise issues of legitimacy<sup>27</sup> or bias.<sup>28</sup> As regards the problem of legitimacy in algorithmic decision-making, the complete or even partial automation of decision-making in individual cases or in legislation strips the person or entity vested with the authority to take decisions or make regulations from their power to do so (“algocracy”).<sup>29</sup> Second, as Joamets notes, in ADM, “biases can inadvertently infiltrate less visible components, such as imbalanced datasets or flawed feature selection, subtly skewing final outcomes toward unfair or discriminatory results”.<sup>30</sup>

With respect to the latter threat, Zuiderveen Borgesius explains that ADM may lead to discrimination when the system is trained on biased data or learns from a biased sample.<sup>31</sup> Examples could be the *A-level algorithm scandal* of the UK in 2020, where the grades of pupils of the most disadvantaged backgrounds were excessively downgraded,<sup>32</sup> or the *child care benefit fraud scandal* in the Netherlands where authorities penalized, and often ruined families – typically belonging to ethnic minorities – suspected of fraud on the sole basis of a self-learning algorithm’s ‘risk profiles’, which in turn, were fed with biased data.<sup>33</sup> Biased, discriminatory outcomes run counter to the principle of good administration requiring quality decisions. Therefore, ‘inclusive’, complete training data are indispensable for ensuring good administration. In her paper in this Special Issue, Bian advocates for the use of sufficient amounts of data in ADM for “a more complete representation of the truth.”<sup>34</sup> Indeed, “the use of inaccurate, incomplete datasets in public decisions that do not match the local population physically, culturally, psychologically can harm said pop-

<sup>27</sup> José Vida Fernández (n 9), 3-13.

<sup>28</sup> Madalina Busuioc, ‘AI Algorithmic Oversight: New Frontiers in Regulation’ in Martino Maggetti, Fabrizio Di Mascio and Alessandro Natalini (eds), *Handbook of Regulatory Authorities* (Edward Elgar 2022) 470.

<sup>29</sup> cf. Bartek Chomanski, ‘Legitimacy and Automated Decisions: The Moral Limits of Algocracy’ (2022) 24 *Ethics and Information Technology* 34.

<sup>30</sup> Kristi Joamets, ‘Towards Fair AI in Estonia’s Public Service’ (2025) 15(3) *TalTech Journal of European Studies* 201, 202.

<sup>31</sup> Frederik Zuiderveen Borgesius, ‘Discrimination, Artificial Intelligence and Algorithmic Decision-Making’ Study conducted for the Directorate General of Democracy of the Council of Europe (2018) <<https://rm.coe.int/discrimination-artificial-intelligence-and-algorithmic-decision-making/1680925d73>> accessed 18 March 2026.

<sup>32</sup> Christina J Colclough, ‘Reshaping the Digitization of Public Services’ (2022) 34(1) *New England Journal of Public Policy* 3.

<sup>33</sup> For another algorithm-related scandal in the Netherlands, see: Sarah de Heer, ‘A Scandal on AI in Administration, Again’ (*Verfassungsblog*, 25 July 2023) <https://verfassungsblog.de/a-scandal-on-ai-in-administration-again/> accessed 19 January 2026; cf. Bian, this issue, 34.

<sup>34</sup> Marginalised groups ... suffer the most from erroneous, poorly trained and opaque AI use. AI use in public decision-making becomes particularly harmful when recipients are denied effective means of challenging or correcting its errors.” Bian, in this issue 32.

ulation and lead machine learning models to produce inaccurate and harmful results.”<sup>35</sup> On the other hand, she warns that collecting more data jars with privacy rights, whose processing may even result in “spurious correlations” or overgeneralization.<sup>36</sup>

## 2.2. Openness

Besides the problem of insufficient or inadequate datasets, Bian notes the opacity of the logic behind ADM, which raises various questions. From the perspective of democracy, the fact that AI tools used in public administration are often developed by private actors can be a reason for concern, due to their “implicit power to affect public decision-making” in a non-obvious way.<sup>37</sup> Another problem Leggio highlights in this issue is that, where ADM works like an inscrutable black box,<sup>38</sup> the factors considered in decision-making and their weighing cannot be reconstructed, resulting in the opacity of the decision-making process.<sup>39</sup> This is problematic for several reasons. Firstly, the decision-maker itself does not understand the decision it took, relying on ADM, and has completely divested itself of the authority endowed upon it, resulting in problems of legitimacy. In addition, such use of ADM also raises the question of the liability of decision-makers for completely automated decisions.<sup>40</sup> Fully automated decisions include, for example, fines imposed in Hungary for speeding, however, the decision must include a reference to the fact that it was produced in ADM and that one may request a review by the authority in full procedure.<sup>41</sup>

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<sup>35</sup> Ibid 32.

<sup>36</sup> Ibid.

<sup>37</sup> Bian, in this issue, 29; cf Leggio, in this issue, 118.

<sup>38</sup> Leggio, in this issue 118; Benedikt Wabl and Roland Vogl, ‘Increasing Transparency in Algorithmic Decision-Making with Explainable AI’ (2018) 42 *Datenschutz und Datensicherheit* 613.

<sup>39</sup> Of course, human decision-making is not necessarily rational or easy to reconstruct: as Williams point out, “They can base their decisions on hunches, have conscious or unconscious prejudices, be affected by their own human experiences and emotions, such as the performance of their favourite football team, or act inconsistently.” Williams Tolbert, ‘Why Causal Inference Is Necessary for Algorithmic Fairness’ (2025) 206 *Synthese* 472.

<sup>40</sup> Mikko Suksi, ‘Administrative Due Process When Using Automated Decision-Making in Public Administration’ (2021) 29 *Artificial Intelligence and Law* 87, 90.

<sup>41</sup> Act CL of 2016 on the Code of General Administrative Procedure (1 January 2024) (Hungary) ss 40, 42-43.

Second, where the decision-maker is not aware of the logic underlying the decision-making process, it is incapable of exercising its duty to give reasons.<sup>42</sup> Finally, if the reasoning behind the decision taken by ADM is unclear and arbitrary, it defies acceptance by the addressees.<sup>43</sup>

Therefore, the ‘openness’, or transparency of the use of AI in administrative decision-making, the data sets used for training and input, and the logic of the decision-making process are fundamental.<sup>44</sup> While efforts to explain the operation of algorithms (Explainable AI, XAI) have been made, these typically cater to the needs of system operators, not decision-makers or addressees of ADM decisions. A right to explanation was included in the EU’s AI Act,<sup>45</sup> restricted to the “main elements of the decision taken” and interpreted into the GDPR through the CJEU’s ruling in *CK v Dun & Bradstreet Austria*. In this ruling, the CJEU established that the right to explanation covers “the functioning of the mechanism involved in automated decision-making of which that person was the subject and the result of that decision” in a meaningful, comprehensible, accessible form.<sup>46</sup> However, as Lember points out, the right to explanation under the AI Act is restricted to high-risk AI systems and an exhaustive list of areas, excluding important areas, such as military, defence, and national security.<sup>47</sup> Therefore, to ensure reversibility, the rights to explanation under the GDPR and the AI Act should be harmonized, and a general standard for “algorithmic explanation” must be guaranteed.<sup>48</sup>

Finally, the question arises: can a meaningful, comprehensible, and accessible explanation even be expected of AI? Wasserman-Rozen et al note that “the right to explanation is, at its core, a mechanism designed to fit a human decision-maker and a tool that assumes human-to-human interaction, making it ill-equipped to offer an adequate solution to the potential harms involved

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42 Bian, in this issue 30; Operations in ADM may “exceed ‘human-scale reasoning’, rendering either or both human oversight in correcting decision-making, or giving reasons and intervention remedying biased or wrongful decisions impossible. Indeed, as Bakiasi and Habousha point out, “the volume, complexity, and speed of AI outputs often exceed human capacity, leading to over reliance on the system, a phenomenon known as automation bias”—meaning it is exactly the incomprehensibility of the factors and their weighting in decision-making which prompts decision-makers to accept the results of ADM. Chomanski, 5-6. Bakiasi, Habousha, in this issue 89.

43 cf. Lember, in this issue, 54.

44 Wärtl, Vogl. 614; Niklas Kossow, Svea Windwehr and Matthew Jenkins, *Algorithmic Transparency and Accountability* (Transparency International 2021).

45 Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (2024) OJ L 2024/1689 (AI Act).

46 Lember, in this issue, 58 and 61.

47 Lember, in this issue, 62; Bakiasi-Habousha, in this issue, 105.

48 Lember, in this issue, 70.

in AI decisions”.<sup>49</sup> While XAI and invoking the right to explanation are still in their infancy, authors are already calling for TAI, that is, Trustworthy AI, which is to conform to the following requirements: human agency and oversight, robustness and safety, privacy and data governance, transparency, diversity and fairness, societal and environmental well-being, and accountability.<sup>50</sup>

### 2.3. Reversibility

Transparency and, as a corollary, the duty to give reasons are essential for “affected persons ... to exercise their rights”<sup>51</sup> of defence and effective review under the Charter of Fundamental Rights,<sup>52</sup> allowing for the ‘*reversibility*’ of flawed administrative decisions. In this Special Issue, Lember refers to several CJEU judgments on the duty to give reasons, which require that decisions be motivated by “sufficiently specific and concrete reasons that would allow the person concerned to understand the grounds of the individual measure” to be able to contest it, and to enable the court to review its lawfulness.<sup>53</sup> The duty to give reasons extends to providing the legal and factual considerations that led to the decision, implying a causal relationship between facts.<sup>54</sup> At the same time, in the case of ADM, decisions are taken on the basis of “associative models that rely on mere pattern recognition based on correlations,” unable to ensure “algorithmic fairness”.<sup>55</sup>

Safeguards ensuring reversibility include a right to obtain human intervention and the right to contest in the case of solely automated decision-making.<sup>56</sup> Invoking rights under the EU legal regime by addressees of ADM is not straightforward, however. In this Special Issue, Bakiasi and Habousha draw attention to the fact that the rules governing the contestability of decisions made by ADM in the case of individual decisions, scientific opinions and administrative rule-making differ under the GDPR, with less protection attached to the latter two categories. This is so, notwithstanding the fact that they may significantly affect the rights and interests of those under their scope.<sup>57</sup> No definition of decision-making was included in the text of the EU’s AI Act. Therefore,

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<sup>49</sup> Hofit Wasserman-Rozen, Ran Gilad-Bachrach and Niva Elkin-Koren, ‘Lost in Translation: The Limits of Explainability in AI’ (2024) 42(2) *Cardozo Arts & Entertainment Law Journal* 391, 394.

<sup>50</sup> Vikram Chamola and others, ‘A Review of Trustworthy and Explainable Artificial Intelligence’ (2023) 11 *IEEE Access* 78994.

<sup>51</sup> AI Act art 86(1).

<sup>52</sup> Lember, in this issue, 53.

<sup>53</sup> *ibid*, 53.

<sup>54</sup> Martin Shapiro, ‘The Giving Reasons Requirement’ (1992) *University of Chicago Legal Forum* 179, 199.

<sup>55</sup> Williams (n 39), 2.

<sup>56</sup> Lember, in this issue, 59.

<sup>57</sup> Bakiasi-Habousha, in this issue, 85; Leggio, in this issue, 116.

the question remains whether AI tools involved in preparing mere scientific opinions or predictive tools that shall serve as a basis for later, individual decisions are actually subject to the same transparency standards as individual decisions.<sup>58</sup> Bian highlights the importance of this aspect, since any biases of the AI tool—even if these are applied in an advisory role—will strongly affect the individual decision taken.<sup>59</sup>

### 3. Conclusions

Digitalisation profoundly reshaped our understanding of good administration: while algorithmic decision-making promises rapid, accurate and cheap solutions, it threatens to undermine the quality, legitimacy, and accountability of administrative action. In this light, this paper examined the problems of digitalisation of administration in the context of good administration, structuring questions and challenges along the so-called Collingridge qualities. It found that the reliance on ADM raises challenges of meeting legal constraints, particularly in the fields of data protection,<sup>60</sup> non-discrimination and the right to remedy.

The increasing reliance on data-driven ADM in public administration threatens to undermine equality and inclusion, as biased or incomplete datasets may aggravate inequalities and produce discriminatory outcomes incompatible with the principle of good administration. At the same time, expanding data collection to mitigate bias may fly in the face of privacy rights and generate new distortions. Openness in ADM regarding data collection and the logic of decision-making is indispensable to furnish decisions with legitimacy and to ensure the conditions for the duty to give reasons and accountability. Although EU law has begun to address transparency through the right to explanation, existing frameworks under the AI Act and the GDPR remain fragmented and limited in scope. Finally, the reversibility of wrongful administrative decisions depends on the right to explanation and, as a corollary, the contestability of all ADM decisions. These points of concern must be addressed by the Union legislator to ensure that digitalization does not erode, but rather contributes to good administration in the EU. As the European Declaration on Digital Rights and Principles for the Digital Decade emphasizes, “the time has come for the EU to spell out how its values and fundamental rights applicable offline should be applied in the digital environment.”<sup>61</sup>

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<sup>58</sup> Leggio, in this issue, 123.

<sup>59</sup> Bian, in this issue, 22.

<sup>60</sup> Muster, Tas in this issue, 135.

<sup>61</sup> European Declaration on Digital Rights and Principles for the Digital Decade [2023] OJ C 23/1, recital 3.

In what follows, the papers in this Special Issue contribute to a better understanding of the development of digitalisation of public administration and its fragmented regulation in the European Union and the legislative loopholes which threaten to compromise core administrative principles and fundamental rights in the evolving context of digitalised public administration struggling to cope with AI, lack of transparency and mismatched allocation of powers. Since the issues of transparency, oversight, data sovereignty, and ethics of, and liability for digitalisation and in particular, in the involvement of AI in public administration are already popular subjects of research, further inquiry is needed into use cases of path dependency and/ or vendor dependency of national or EU administrations. In addition, long-term predictions should be made to gauge the effects of digitalisation and AI use on administrations from the perspective of civil servants' roles and training to prepare recruitment and estimate professional capacities of future, digitalized public administrations.<sup>62</sup>

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<sup>62</sup> cf. Karl-Peter Sommermann, 'The Changing Tasks and Environment of Public Administration: Challenges for the Civil Service' in Karl-Peter Sommermann, Adam Krzywoń, Cristina Fraenkel-Haeberle (eds) *The Civil Service in Europe: A Research Companion* (2025), Routledge 42-65.