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ARTIFICIAL INTELLIGENCE AND PARLIAMENTARY DEMOCRACY: RECLAIMING LAWMAKING IN THE DIGITAL ERA

Intelligenza artificiale e democrazia parlamentare: ripensare il procedimento legislativo nell'era digitale

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Abstract (En): *The article examines the potential and the risks associated with the use of artificial intelligence in the legislative process, with particular attention to its capacity to strengthen the constitutional role of Parliament vis-à-vis the executive. The analysis focuses on three main areas of application: the cognitive phase, in which AI may support evidence-based lawmaking by reducing the informational asymmetry between Parliament and Government; the drafting phase, where AI-assisted tools affect the quality of legislation while raising concerns about political discretion; and the participatory dimension, through models of AI-supported legislative crowdsourcing. In light of the challenges related to opacity, algorithmic bias, and democratic legitimacy, the article argues that artificial intelligence can be integrated into the legislative process only if conceived as an auxiliary and complementary instrument to political representation, with parliamentary standing orders playing a central role in balancing automation and representative democracy.*

Abstract (It): Il contributo esamina le potenzialità e i rischi dell'impiego dell'intelligenza artificiale nel procedimento legislativo, con particolare riguardo al possibile rafforzamento del ruolo costituzionale del Parlamento rispetto all'esecutivo. L'analisi si articola attorno a tre ambiti di applicazione: la fase conoscitiva, in cui l'AI può sostenere l'*evidence-based lawmaking* attenuando l'asimmetria informativa con il Governo; la fase redazionale, in cui gli strumenti di *drafting* assistito incidono sulla qualità della normazione, sollevando al contempo interrogativi sulla discrezionalità politica; e la dimensione partecipativa, attraverso modelli di *crowdsourcing* legislativo supportati da tecnologie algoritmiche. Alla luce delle criticità connesse a opacità, *bias* e legittimazione democratica, l'articolo sostiene che l'intelligenza artificiale possa trovare ingresso nel procedimento legislativo solo in una logica ausiliaria e complementare alla rappresentanza politica, valorizzando il ruolo dei regolamenti parlamentari quali strumenti di bilanciamento tra automazione e democrazia rappresentativa.

Keywords: *Artificial intelligence; Legislative process; Parliamentary democracy; Digital participation*

Parole chiave: Intelligenza artificiale; procedimento legislativo; democrazia parlamentare; partecipazione digitale

1. Introductory Remarks: Lawmaking in the Algorithmic Era

The process of digitalisation, initiated in the final decade of the twentieth century, consolidated during the subsequent decade and significantly accelerated by the Covid-19 pandemic, has profoundly

affected the foundations of society, with far-reaching implications for the role of all constitutional bodies, and particularly for Parliament[1].

Traditionally conceived as a "threshold institution"[2], by virtue of its essential role as a transmission belt between society and the state, is now facing unprecedented challenges, in some ways existential[3], that the new *digital age* poses both theoretically and practically.

Until recently, legislative assemblies, by their very nature linked to established traditions and conventions, have maintained a predominantly cautious approach to new technologies[4]. In recent years, however, studies and empirical research have highlighted a growing interest on the part of these representative institutions in the potential offered by digital innovation[5]. In the Italian context, this trend is reflected, among other things, in the recent fact-finding investigation launched by the Chamber of Deputies, at the instigation of the Supervisory Committee on Documentation established within the Bureau[6], with the aim of exploring the contribution that digitisation can make to parliamentary activities (*parliamentary technology* - ParlTech)[7].

The transformative effects of the digital transition on the way parliamentary functions are carried out are, naturally, characterised by a high degree of complexity. These effects manifest themselves in many ways and, in many respects, are still largely unpredictable, as they are closely intertwined not only with the form of government - understood in a broad sense, i.e. including the party system[8] - but also with the traditions and political culture of the country. This makes it somewhat difficult to address the phenomenon in a systematic and comprehensive manner.

With this in mind, this paper sets out a more limited objective: to assess whether, and to what extent, *artificial intelligence* (AI), as the most advanced expression of the ongoing technological revolution, can be applied in the near future to the Italian legislative process.

In the perspective of the investigation outlined - which, although it may appear futuristic, already finds concrete confirmation in certain experimental practices developed in the field of comparative and supranational law[9] - three main levels of potential impact of artificial intelligence models on the

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Moreover, as N. LUPO points out in *La rivoluzione digitale e i suoi effetti sull'attività parlamentare* (The digital revolution and its effects on parliamentary activity), in *Lo Stato*, no. 17/2021, p. 292, 'the history of the parliamentary institution shows us how, since its earliest days, it has been profoundly affected by the technological conditions that have characterised the society in which it has been placed'.

[2] Thus, expressly, A. MANZELLA, *Il parlamento*, il Mulino, Bologna, 1977, p. 15.

[3] N. LUPO, *Il Parlamento e la sfida della digitalizzazione*, in *Riv. trim. dir. pubbl.*, no. 2/2021, p. 502.

[4] C. LESTON-BANDEIRA expresses this view in *The Impact of the Internet on Parliaments: a Legislative Studies Framework*, in *Parl. Aff.*, no. 4/2007, p. 655 ff., in examining the process of modernising parliamentary administration through IT innovation.

[5] In this regard, reference should be made to the study conducted *by the Inter-Parliamentary Union*, which highlights how artificial intelligence has now become a permanent feature on the agenda of parliaments (see INTER-PARLIAMENTARY UNION, *World e-Parliament Report 2024*, October 2024).

[6] See SUPERVISORY COMMITTEE ON THE DOCUMENTATION ACTIVITIES OF THE CHAMBER OF DEPUTIES, *Utilizzare l'intelligenza artificiale a supporto del lavoro parlamentare*, XIX Legislature, February 2024, pp. 79-80, which documents that the Chamber already uses artificial intelligence-based technologies in the process of recording parliamentary proceedings and streaming them *live*, as well as - even more significantly - to support the analysis and management of amendments in the legislative process. See also CHAMBER OF DEPUTIES, *Relazione sullo stato dell'amministrazione*, 19th Legislature, 2024, p. 26.

[7] On the concept of 'ParlTech', see A. MALASCHINI, M. PANDOLFELLI, *PARLTECH. . Intelligenza Artificiale e Parlamenti: una prima riflessione*, in *Luiss SoG*, *Work. Pap. Ser.*, no. 69/2022, p. 1 ff.

[8] As noted by L. ELIA, *Governo (forme di)*, in *Enc. dir.*, XIX, Giuffrè, Milan, 1970, p. 638 ff., forms of government in democratic states can no longer be classified or analysed without reference to the political party system.

[9] According to THE INTER-PARLIAMENTARY UNION, World *e-Parliament Report 2024*, October 2024, p. 29, currently 29% of the parliaments surveyed - a sample of 115 parliaments or parliamentary chambers from 86

constitutional mechanisms governing the legislative decision-making process by Parliament (Articles 70 et seq. of the Constitution) will be examined in depth[10]. The first level concerns the recognition and systematisation of information flows that are functional to legislative production (para. 2); the second level concerns support for the preparation and drafting of legislative texts (para. 3); the third level concerns the integration of civic participation in the law-making process (para. 4)[11].

In light of the analysis conducted, and moving beyond the sterile polarisation between 'cyber-sceptics' and 'cyber-optimists', we will support the thesis that the introduction of artificial intelligence into the parliamentary decision-making process - provided that it is adequately purged of the main critical issues, embedded in the parliamentary administration and conceived as auxiliary to the role of elected representatives - could constitute a positive rebalancing factor between the powers constitutionally recognised to the Chambers and those actually exercised by them in the legislative sphere[12].

More specifically, we will attempt to demonstrate how artificial intelligence has the potential to be one of the tools capable of addressing, at least in part, one of the key issues at the heart of the contemporary constitutional debate: the progressive marginalisation of Parliament within the legislative process, in the face of the growing prominence of the Government (para. 5)[13].

2. The Knowledge Dimension: Evidence-Informed Lawmaking

A first area of possible application of artificial intelligence to the legislative process concerns the fact-finding phase that precedes political decisions aimed at producing legislation[14], i.e. the moment of

countries - have adopted applications based on artificial intelligence. In addition to current uses, there is a particularly noteworthy experiment promoted by the Finnish Parliament's Committee for the Future, which organised a parliamentary hearing using an artificial intelligence system. As part of this initiative, MPs asked questions to the artificial system - focusing in particular on the United Nations 2030 Agenda and algorithmic potential - and then discussed the answers obtained with a group of IT experts.

[10] This area of research has, to date, received only partial attention. In fact, although artificial intelligence, considered as a general phenomenon of social relevance requiring legislative regulation, has been extensively explored by legal scholars, its use in support of parliamentary activity remains a poorly explored field, at least in the context of constitutional reflection. There are, of course, some notable exceptions, including the monographic study by A. CARDONE, *'Decisione algoritmica' vs decisione politica. A.I., Legge, Democrazia*, Editoriale Scientifica, Naples, 2021.

[11] The proposed three-part division serves an eminently heuristic function, as it aims to offer an interpretative key useful for supporting the argument developed here, without however aspiring to exhaust the range of possible applications of artificial intelligence to parliamentary decision-making processes. For a systematic and more comprehensive overview of these applications, see Y.M. CITINO, *L'intelligenza artificiale applicata ai processi decisionali parlamentari: una griglia di funzioni e una stima dei rischi per la neutralità delle tecnologie*, in *Rass. parl.*, no. 3/2022, p. 629 ff.

[12] There is a vast amount of literature on the subject: for all, see F. MODUGNO, *A mo' di introduzione. Considerazioni sulla crisi della legge*, in ID. (ed.), *Trasformazioni della funzione legislativa. II. Crisi della legge e sistema delle fonti*, Giuffrè, Milan, 2000, p. 1 ff.

[13] See M. CARTABIA, *Il Governo "signore delle fonti"?*, in M. CARTABIA, E. LAMARQUE, P. TANZARELLA (eds.), *Gli atti normativi del Governo tra Corte costituzionale e giudici*, Giappichelli, Turin, 2011, p. IX ff., who described the executive as the 'lord of the sources'.

[14] According to THE INTER-PARLIAMENTARY UNION, *World e-Parliament Report 2024*, October 2024, p. 44, currently 4% of the parliaments surveyed have already adopted artificial intelligence-based applications to improve the flow of information to parliamentarians, while 29% plan to do so in the near future. For example, the Austrian Parliament uses *'EULE Media Monitor/360°* Topic-Monitoring', an artificial intelligence-based solution developed with the aim of supporting parliamentarians in keeping up to date. Through access to a web platform, *EULE* provides members of parliament with accurate and reliable information, thus facilitating the exercise of their legislative function. See INTER-PARLIAMENTARY UNION, *Austria uses AI to keep MPs informed*, in *Innovation Tracker*, No. 1/2019.

reconnaissance, processing and systematisation of information, which serves to support both the initiative[15] and the legislative investigation[16].

Never before has the exercise of legislative power required the Chambers to acquire such a vast amount of data, coming both from democratic representatives - composed of individual parliamentarians and various political groups - and from institutional and non-institutional actors with whom they are called upon to interact, starting with the Government. The legislative decision-making process also requires increasingly sophisticated analytical skills, which are essential for effectively interpreting and synthesising the vast amount of information available.

In other words, within a constitutional state of pluralist democracy such as ours, marked by the growing complexity of social and economic reality, the cognitive dimension takes on central importance, becoming an essential factor in the legislative process and, more generally, in *political decision-making*.

From this perspective, the potential offered by artificial intelligence appears to be considerable.

First of all, thanks to its advanced *information retrieval* capabilities, artificial intelligence is a strategic tool for meeting the high knowledge requirements that characterise contemporary political deliberations[17].

Favoured by the *paperless* dimension and the use of *cloud* infrastructure, this technology could facilitate the collection, cataloguing and synthesis, in both multilingual and multimodal form, of a considerable amount of data (*big data*)[18] from a variety of sources, research and initiatives, including those developed in other jurisdictions and in the European Union. Such a contribution would prove decisive for a more in-depth understanding of the regulatory, jurisprudential and comparative framework in which legislative interventions are inserted, identifying possible contradictions - notably those attributable to discrepancies with higher-level, constitutional or supranational norms - and allowing for the management of a stratification of information that would otherwise be difficult to control[19].

Moreover, the combination of formidable *computing power* and *machine* learning[20] now makes it possible to process, in an extremely short time, vast amounts of information present in the 'infosphere'[21]. Through innovative *data* mining and *data* analytics techniques, it is possible to transform a vast array of raw knowledge elements (*input*) into a structured result (*output*) that is highly relevant and pertinent to the context of reference.

Algorithms based on artificial intelligence would thus enable a systematic reconstruction of the state of the art of the subject matter covered by legislation, identifying recurring *patterns* within vast volumes of information, drawing inferences capable of revealing relationships and interdependencies

[15] See Article 71 of the Constitution; Articles 68 et seq. of the Chamber of Deputies Regulations; Articles 73 et seq. of the Senate Regulations.

[16] See the Circulars of the Presidents of the Chamber of Deputies and the Senate of 10 January 1997 on legislative investigation, the fundamental principles of which were subsequently incorporated, albeit only by the Chamber of Deputies, into regulatory provisions (Article 79(4) of the Chamber of Deputies Regulations).

[17] For further information, see the monograph by M. FALCONE, *Ripensare il potere conoscitivo pubblico tra algoritmi e Big Data*, Editoriale Scientifica, Naples, 2023.

[18] There is a wealth of doctrinal literature on the subject of *big data*. See, for example, G. DE MINICO, *Big Data e la debole resistenza delle categorie giuridiche. Privacy e lex mercatoria*, in *Dir. pubbl.*, no. 1/2019, p. 89 ff.

[19] This is highlighted by P.F. BRESCIANI, M. PALMIRANI, *Constitutional Opportunities and Risks of AI in the law-making process*, in *federalismi.it*, no. 2/2024, p. 7.

[20] It should be noted that artificial intelligence can be traced back to two main methodological paradigms: the model-based approach (*model-based AI)* and the *machine learning* approach (*machine learning AI*). The former relies on experts developing logical or mathematical models to represent complex phenomena and, on this basis, guide the system's decisions. The second, on the other hand, is characterised by the ability of systems to learn directly from data, identifying regularities and patterns of behaviour without resorting to prior explicit modelling of phenomena. This distinction is now well established in the literature and cannot be discussed in detail here.

[21] L. FLORIDI, *The Fourth Revolution. How the Infosphere is Reshaping Human Reality* (2014), Raffaello Cortina Editore, Milan, 2017.

that are not immediately detectable using traditional methods, and thus providing a comprehensive view of the dynamics underlying the phenomenon under parliamentary scrutiny.

In addition, artificial intelligence models, thanks to the use of *predictive analytics* techniques, make it possible to simulate hypothetical scenarios useful for testing the effectiveness of possible regulatory interventions, assessing their ability to achieve the set objectives and, at the same time, identifying any undesirable side effects.

In this way, these intelligent systems could offer significant support for the impact assessment, including from an economic perspective[22], of future legislation[23], helping to estimate the likelihood of its actual implementation and, consequently, to define objectives and timetables consistent with the real capacity to implement public policies[24].

In this context, artificial intelligence applications are potentially suitable tools for mitigating the information asymmetry that traditionally characterises the relationship between the legislative and executive branches, thus promoting an overall rebalancing of the structure of government[25]. It is well known that parliamentarians generally have more limited access to technical information, specialist analysis and knowledge resources useful for the exercise of legislative functions than members of the executive.

This gap is largely attributable to the fact that members of the government can directly draw on the essential support of the administrations they oversee, which are the main repositories of the information needed for the legislative process[26]. In addition, these administrative structures can count on organisational, human and financial resources that are significantly greater than those available to the offices of the Chambers.

In this context, the integration of artificial intelligence-powered software into parliamentary deliberative processes would allow elected representatives to have access to independently developed briefing materials, helping to mitigate the information constraints to which they are subject and, consequently, reduce their dependence on the Government and ministerial bureaucracy. Such a 'parliamentarisation' of the information gathering process would therefore strengthen the ability of the Chambers to initiate *the* law-making *process* with proposals backed by solid *evidence-based* support[27]

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[22] P. BONACCI, *Prospettive e potenzialità del ricorso a strumenti d'intelligenza artificiale nel quadro della decisione parlamentare di bilancio*, in D. DE LUNGO, G. RIZZONI (eds.), *Le assemblee rappresentative nell'era dell'intelligenza artificiale. Profili costituzionali*, cit., p. 203.

[23] See F. PACINI, *Intelligenza artificiale e decisione politica: qualche considerazione tra questioni vecchie e nuove*, in A. D'ALOIA (ed.), *Intelligenza artificiale e diritto. Come regolare un mondo nuovo*, FrancoAngeli, Milan, 2021, p. 378 ff.

[24] All this would contribute to improving the *substantive* quality of legislation, understood as the suitability of the rules to effectively pursue the objectives of general interest that have been set. On the close correlation between the quality of legislation and the quality of legislative investigation, see M. DE BENEDETTO, *Qualità della legislazione tra scienza, tecnica e tecnologia*, in *Oss. fon.*, no. 2/2022, p. 385. The substantive quality of legislation must, however, be distinguished from *formal* quality, which instead concerns the technical correctness, clarity of expression and systematic consistency of legislative texts, aspects that will be examined in more detail in the following paragraph (see *below*, para. 3).

[25] This thesis is supported by D. DE LUNGO, *Le prospettive dell'AI generativa nell'esercizio delle funzioni parlamentari di controllo e indirizzo. Un primo inquadramento costituzionale, fra asimmetria informativa e forma di governo*, in *federalismi.it*, no. 23/2024, p. 68 ff.

[26] Thus D. DE LUNGO, *Le prospettive dell'AI generativa nell'esercizio delle funzioni parlamentari di controllo e indirizzo. Un primo inquadramento costituzionale, fra asimmetria informativa e forma di governo*, cit., 77, who observes that a partial attenuation of information asymmetry is nevertheless conceivable, at least for parliamentarians belonging to the majority that supports the executive, or to the party representing the competent minister, due to the political connection that can ensure closer forms of support, thus facilitating access to relevant information.

[27] F. FITSILIS, D. KORYZIS, G. SCHEFBECK, *Legal Informatics Tools for Evidence-Based Policy Creation in Parliaments*, in *Int. J. Parl. Stud.*, no. 2/2022, p. 5 ff.

and thus potentially capable of eroding, at least in part, the executive's established cognitive monopoly, encouraging legislation that is less tied to the contingencies and priorities of government policy.

If this interpretation is correct, it should be added, however, that the prospects opened up by the use of artificial intelligence in the processes of reconnaissance and systematisation of information flows would inevitably clash with the structural limitations inherent in such use[28].

Firstly, there would be a problem of epistemic opacity, commonly known as *the 'black* box' effect, which would make it difficult to understand and explain in detail the complex decision-making mechanism of artificial intelligence applications[29]. This problem would be particularly pronounced in cases where these applications were trained using deep *learning* techniques[30], which are likely to produce algorithmic results as a result of an inferential process that is not fully intelligible to either end users or programmers or developers themselves.

Secondly, artificial intelligence mechanisms could generate errors and disseminate unverified or potentially misleading information: a phenomenon that the literature in the field describes as '*artificial hallucinations*'. This phenomenon, which is particularly frequent in contexts characterised by information that is difficult to access, unrepresentative or incomplete, derives from the very nature of generative models which, operating according to probabilistic logic and constructing responses based on correlations learned during training, do not have an effective capacity for empirical verification of the content produced[31].

Thirdly, there is a risk of *algorithmic bias* emerging in the results generated by devices equipped with artificial intelligence[32]. Algorithms do not operate as neutral tools, as they are designed and trained by human beings who make inherently subjective evaluative choices, translating into artificial intelligence devices - consciously or unconsciously - preconceptions, stereotypes and cultural views specific to the historical, institutional and social context of reference[33]. This would lead to the danger of reproducing and amplifying existing prejudices through such algorithmic devices, to the point of transforming the devices themselves into vehicles of discrimination, in open contrast with the principle of equality enshrined in Article 3 of the Constitution.

In light of the critical issues highlighted, the use of advanced artificial intelligence tools in the

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[28] See E. LONGO, *Quanta intelligenza artificiale fa bene ai Parlamenti? Riflessioni intorno ai principali problemi connessi all'uso delle tecnologie digitali nell'esercizio della funzione legislativa*, in D. DE LUNGO, G. RIZZONI (eds.), *Le assemblee rappresentative nell'era dell'intelligenza artificiale. Profili costituzionali*, cit., esp. p. 178 ff.

[29] On the subject of epistemic opacity, see: F. PASQUALE, *The Black Box Society. The Secret Algorithms that Control Money and Information*, Harvard University Press, Cambridge, 2015.

[30] *Deep learning* is an advanced *machine learning* technique that stands out for its use of *artificial* neural *networks*, organised into a multiplicity of hierarchically organised layers. Unlike traditional *machine learning* approaches, which require human intervention in the selection and engineering of significant variables contained in the data to be used in the artificial intelligence system's learning process (*feature engineering*), *deep learning* allows the system to autonomously extract relevant representations of the data, directly inferring the most abstract and complex structures.

[31] As noted by A. SANTOSUOSSO, *Intelligenza artificiale e diritto. Perché le tecnologie di IA sono una grande opportunità per il diritto*, Mondadori, Milan, 2020, pp. 8-9, machine learning - a fundamental component of artificial intelligence systems - is capable of identifying statistical correlations that would otherwise be invisible within large amounts of data; however, it is not always able to provide reliable indications about causal relationships.

[32] For a theoretical framework, see A. SIMONCINI, S. SUWEIS, *Il cambio di paradigma nell'intelligenza artificiale e il suo impatto sul diritto costituzionale*, in *Riv. fil. dir.*, no. 1/2019, p. 96 ff.

[33] The myth of algorithmic neutrality has now been widely refuted, due to growing awareness of the significant distortions that artificial intelligence systems can cause in their respective application contexts (e.g., in the financial, insurance, criminal and other high-decision-density sectors). The literature on the subject is particularly extensive; among the most significant contributions are: C.R. SUNSTEIN, *#Republic. La democrazia nell'epoca dei social media*, il Mulino, Bologna, 2017.

construction of knowledge assets to support parliamentary *law-making* activities would risk not translating into a real strengthening of the Chambers vis-à-vis the Government. Parliamentary decisions would, in fact, end up being based on assessments made by technological devices whose operation would, in many respects, be lacking in terms of trustworthiness.

However, such structural weaknesses could be at least partially offset by the adoption of appropriate corrective measures[34].

First of all, the opacity of the processes through which *the input* would be processed to generate the final response could be reduced by introducing specific guarantees of transparency and accountability. These should cover not only the algorithmic codes adopted, but also the technical documentation relating to the design of the artificial intelligence system and the data used in the training phase (*AI training data*)[35].

At the same time, it would be appropriate to provide guarantees of computational interpretability, which could be implemented through the adoption of techniques based on the *explainable* artificial intelligence (XAI) paradigm, aimed at making the decisions taken by the system intelligible even when based on deep learning models[36] . These techniques, which are currently under development - such as the LIME (*local interpretable model-agnostic explanations*) methodology[37] - would make it possible to identify and represent, in a generally comprehensible manner, the variables determining the outcome produced by the algorithm, thus allowing at least a partial reconstruction of the logic underlying the automated decision-making process.

Furthermore, in order to avoid artificial intelligence applications returning information that does not fully correspond to reality, it would be essential for such applications to be fed exclusively by documentary bases contained in certified archives and databases, derived from statistical surveys and scientific studies conducted by qualified experts. Such an approach would make it possible, where necessary, to exclude data from generalist search engines (such as *Google*, *Bing*, *Yahoo*, etc.), whose reliability would be undermined by the presence on the Internet of fragmentary, incomplete, obsolete, inaccurate or even false information[38] .

The primary sources of reference should therefore consist of parliamentary documents and acts - such as current legislation, bills, amendments, reports of parliamentary debates and hearings, acts of parliamentary scrutiny and guidance, as well as dossiers from the Chambers' research services - already organised and classified using metadata tools (e.g. TeSeo[39]) and made mutually integrated and

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[34] This is the solution advocated, for example, by L. AMMANNATI, *I 'signori' nell'era dell'algoritmo*, in *Dir. pubbl.*, no. 2/2021, pp. 397-399.

[35] As B. CARAVITA DI TORITTO wrote, *Principi costituzionali e intelligenza artificiale* (2020), now in ID., *Letture di diritto costituzionale*, Giappichelli, Turin, 2020, p. 76, 'it must be possible to access the algorithm, it must be knowable, it must be reviewable in order to check on the basis of which data, which information, which presentation of the problem its operation was initiated'.

[36] The so-called *explainable AI* - understood as the set of methodologies aimed at making the decision-making processes of technologies based on *machine learning* algorithms understandable, through the identification and intelligible representation of relevant information (e.g., relating to the *datasets* used, the functioning of the algorithms or the decision-making criteria adopted) - is discussed by: F. SOVRANO, F. VITALI, M. PALMIRANI, *Making Things Explainable vs Explaining: Requirements and Challenges under the GDPR*, in V. RODRÍGUEZ-DONCEL, M. PALMIRANI, M. ARASZKIEWICZ, P. CASANOVAS, U. PAGALLO, G. SARTOR (eds.), *AI Approaches to the Complexity of Legal Systems XI-XII*, Springer, Cham, 2021, p. 169 ff.

[37] This is a technique that allows the functioning of complex algorithmic models to be explained through the controlled generation of *input* variants and the comparative analysis of *the outputs* obtained, with the aim of approximating the behaviour of artificial intelligence systems through interpretable tools.

[38] On this subject, see E. STRADELLA, *Stereotipi e discriminazioni: dall'intelligenza umana all'intelligenza artificiale*, in *Consulta online*, *Liber amicorum per Pasquale Costanzo*, 30 March 2020, p. 2.

[39] TeSeO (acronym for 'TEsauro SEnato per l'Organizzazione dei documenti parlamentari', or 'Senate Thesaurus for the Organisation of Parliamentary Documents') is a system developed by the Senate for the thematic classification of bills and other parliamentary acts. It is based on a hierarchical thesaurus consisting of over 3,600

interoperable according to the paradigm of so-called '*linked data*'[40]. In addition, in order to ensure adequate levels of traceability, the artificial intelligence systems used should explicitly indicate, at the end of the generative process, the certified sources used to produce *the* final *output*.

Furthermore, in order to mitigate the risk of discriminatory legislative choices - and, as such, constitutionally illegitimate - attributable to the use of algorithms contaminated by bias, it would be necessary to design anti-discrimination devices according to a *by default* and *by design* perspective[41], i.e. capable of preventing the onset of any *bias ex ante*. In other words, already in the design and development phase, such systems should expressly incorporate the principle of non-discrimination, as defined by the Italian constitutional system and interpreted by the jurisprudence of the Constitutional Court, while at the same time enhancing the guidelines developed on the subject by the Court of Justice of the European Union and the European Court of Human Rights.

Finally, it should be noted that, if computational systems are used to process knowledge assets in support of decisions that may result in legislative acts, it would be essential to supplement the technical safeguards described above with constant and rigorous human supervision. This activity should specifically aim to identify and minimise any malfunctions related to the operational logic of the algorithms that technical corrective measures alone may not be able to detect and correct adequately.

With this in mind, it would be desirable to create institutional structures specifically dedicated to verifying and validating the results produced by artificial intelligence systems, entrusting this task to the parliamentary administration[42]. In this regard, it is significant to note that, in comparative experience, several elected assemblies have already established specialised internal bodies with advisory functions, tasked with analysing the challenges posed by the digital transition and assessing the impact of scientific and technological progress on parliamentary dynamics[43].

These bodies contribute to the definition and development of what is commonly referred to internationally as '*parliamentary technology assessment*'. Examples include the *Büro für Technikfolgen-Abschätzung* established at the German *Bundestag*, *the Office parlementaire d'évaluation des choix scientifiques et technologiques*, a bicameral body supporting the French *Assemblée nationale* and *Sénat*, the *Parliamentary Office of Science and Technology* operating at the British *House of Commons*, and the *Panel for the Future of Science and Technology*, operating within the European Parliament.

3. Legislative Drafting: AI-Supported Drafting Tools

A second area of possible application of artificial intelligence in the legislative process concerns the drafting and writing of legislative texts[44].

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descriptors and, thanks to the integration of machine learning techniques, allows for the automated and uniform classification of legislative texts, thus helping to reduce distortions attributable to subjective criteria.

[40] In a nutshell, *linked data* are data structured according to shared web standards that allow them to be linked to each other, with the aim of improving their accessibility and interoperability.

[41] For a more problematic perspective on the possibility of integrating constitutional principles into the design phase of artificial intelligence applications intended for the legislative sphere, see A. CARDONE, *"Decisione algoritmica" vs decisione politica. A.I., Legge, Democrazia*, cit., pp. 162-163.

[42] See Article 67 of the Chamber of Deputies Regulations; Article 166 of the Senate Regulations. In legal theory, useful reflections on this topic are offered by C. DI ANDREA, *L'intelligenza artificiale e le sfide per le amministrazioni parlamentari: spunti di riflessione*, in D. DE LUNGO, G. RIZZONI (eds.), *Le assemblee rappresentative nell'era dell'intelligenza artificiale. Profili costituzionali*, cit., p. 73 ff.

[43] In this regard, it should be noted that the Constituent Assembly was well aware of the need to provide the Chambers with technical support capable of verifying the information available and assisting them in the legislative process of an increasingly complex and specialised reality. The issue arose on several occasions during the work of the Constituent Assembly. See, for example, Costantino Mortati's speech at the Second Sub-Committee meeting on 27 September 1946 (ASSEMBLEA COSTITUENTE, *Resoconto della seduta*, Rome, 27 September 1946, pp. 299-300).

[44] According to THE INTER-PARLIAMENTARY UNION, *World e-Parliament Report 2024*, October 2024, p. 44, 6%

In this regard, it should first be noted that, both in Italy and - albeit with the necessary differences - on a global scale, the activity of legislative *drafting* has gradually become concentrated in the hands of the executive. Primary legislation is increasingly dominated by government initiatives[45], accompanied by a steady expansion of secondary legislation falling within the remit of the executive[46], a phenomenon that has intensified significantly during the pandemic emergency[47].

However, this trend does not result in the complete exclusion of the Chambers from the process of *drafting* regulatory texts. *The* legislative *process* is divided into a number of stages specifically aimed at the parliamentary refinement of government bills, both during committee examination and during debate in the Chamber. It is at these stages that the legislative investigation takes place, aimed, among other things, at ensuring the formal and substantive quality of the legislative text[48]. This is accompanied by the process of preparing and formulating amendments, which represents a further stage of parliamentary intervention on the legislative text under discussion[49]. The picture is completed by formal coordination, through which the Chambers carry out a final check to ensure the systematic consistency and quality of the provisions submitted to the final vote[50].

In all these phases, which constitute the core of the parliamentary dimension of legislative *drafting*, as well as, albeit to a lesser extent, in the phase of drafting parliamentary bills, new technologies powered by artificial intelligence could play a decisive role[51].

From this perspective, legimatics, a discipline that combines legal informatics[52] and legislative drafting[53] with the aim of assisting the legislator in the production of legislative texts and promoting the computerisation of legislative processes[54], takes on particular importance. Legimatics is a central tool in *better law-making* policies, which aim to improve the quality of legislative output through

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of the parliaments surveyed have already adopted artificial intelligence-based applications to support *drafting* activities, while 54% say they plan to use them in the near future. One of the most significant cases is that of the Brazilian Parliament, which is currently implementing artificial intelligence systems designed to assist in the drafting of legislation.

[45] See OSSERVATORIO SULLA LEGISLAZIONE DELLA CAMERA DEI DEPUTATI, *La legislazione tra Stato, Regioni e Unione Europea*. *Rapporto 2024-2025*, p. 25, which highlights the clear prevalence of legislative measures originating from the government - both bills and decree-laws - which, as of 13 February 2025, accounted for 73.5% of all legislative initiatives presented in the 19th legislature (133 out of 181).

[46] See the classic E. CHELI, *Ruolo dell'esecutivo e sviluppi recenti del potere regolamentare*, in *Quad. cost.*, no. 1/1990, p. 53 ff.

[47] *Ex multis*, P. CARETTI, *I riflessi della pandemia sul sistema delle fonti, sulla forma di governo e sulla forma di Stato*, in *Oss. fon.*, special issue 2020, p. 296 ff.

[48] See Article 79, paragraph 4, Chamber of Deputies Regulations.

[49] See Art. 86 et seq. of the Chamber of Deputies Regulations; Art. 95 et seq. of the Senate Regulations.

[50] See Art. 90, paragraphs 1 and 2, Chamber of Deputies Regulations; Art. 103 Senate Regulations.

[51] In this regard, it should be noted that the digital environment that frames the drafting phase *of the legislative process* is now quite developed in the Italian parliamentary context. In the Chamber of Deputies, in particular, an application called 'geoCamera' is currently in operation, allowing deputies to submit bills and amendments through specific sections - called 'geoPdl' and 'geoEm' respectively - which provide information on the formal regularity of the document submitted. Thanks to the use of artificial intelligence technologies, the system is able to detect any anomalies in the drafting or submission procedure, such as the absence of the text at the time of uploading to the platform or errors in the indication of the signatories. On this point, see A. MALASCHINI, M. PANDOLFELLI, *Partecipazione ai lavori a distanza da parte dei parlamentari: un possibile percorso*, in *Forum di quad. cost.*, no. 4/2020, p. 25. For a detailed examination of the Senate's experience, see E. GRIGLIO, C. MARCHETTI, *La "specialità" delle sfide tecnologiche applicate al drafting parlamentare: dal quadro comparato all'esperienza del Senato italiano*, in *Oss. fon.*, no. 3/2022, pp. 374-376.

[52] See W. D'AVANZO, *Tecniche legislative e qualità della regolazione. Il ruolo dell'informatica giuridica*, in *Open J. Humanit.*, no. 6/2020, p. 85 ff.

[53] In doctrine, S. BARTOLE (ed.), *Lezioni di tecnica legislativa*, CEDAM, Padua, 1988.

[54] On the origins and development of legimatics, see P. MERCATALI, *Verso una nuova disciplina: la legimatica*, in *Inf. dir.*, no. 1/1993, p. 43 ff.

greater linguistic and stylistic clarity[55].

On this basis, we can hypothesise further development of the drafting techniques already tested in the field of legimatics, through the integration of advanced solutions based on artificial intelligence[56]. Such solutions could, in fact, enhance the effectiveness of existing *drafting* methodologies, contributing significantly to strengthening the quality of regulation, which is undoubtedly a constitutionally important objective[57].

After all, assisted standardisation software has long been designed and implemented, capable of performing grammatical, morphosyntactic and lexical checks, organising regulatory content according to predefined schemes and preparing standardised editorial formulas[58]. Today, however, the use of technologies focused on *large language models* (LLMs)[59] opens up entirely new scenarios, allowing us to conceive of the law no longer exclusively as a set of provisions to be interpreted[60], but as a *corpus* of structured data that can be automatically processed by intelligent systems (*law as data*)[61].

From this perspective, the integration of writing algorithms - including in the form of *chatbots* - could contribute to the actual drafting of legislative acts, transferring, at least in part, the drafting process from parliamentarians to automated components[62]. This development, made possible by *natural language generation* (NLG) technologies capable of converting aggregated information into natural language[63] , would offer elected representatives the opportunity not only to transform

[55] For a critical analysis of the potential of legimatics, see L. BUFFONI, *La rappresentazione e il valore di legge. Contro i dispositivi*, in *Consulta online*, *Liber amicorum per Pasquale Costanzo*, 13 March 2020, esp. p. 24.

[56] For further information, see M. PALMIRANI, F. VITALI, W. VAN PYMBRROECK, F. NUBIA DURANGO, *Legal Drafting in the Era of Artificial Intelligence and Digitalisation*, European Commission, Brussels, April 2022, p. 5 ff.

[57] The Italian Constitutional Court has repeatedly emphasised the constitutional value of the formal quality of legislation, stating that 'the clarity of legislative provisions contributes to legal certainty and reduces the likelihood of disputes' (Constitutional Court, No. 31/1983, point 2 of *the Legal Considerations*). In a more recent ruling, the same Court also noted that 'provisions that are irremediably obscure, and therefore give rise to intolerable uncertainty in their practical application, are contrary to the principle of reasonableness of the law referred to in Article 3 of the Constitution'. (Constitutional Court, No. 110/2023, point 4.3.3 of *the Legal Considerations*).

[58] Consider, for example, the so-called 'electronic desk', understood as a computerised workstation capable of providing the legislative drafter with a variety of applications (e.g. definition tools, spelling and syntax checkers, legal databases), which allow for significant progress to be made in the formal quality of legislative *drafting*. In particular, there are several regional experiences of applying similar legislative technologies, which are distinguished by their early start and the continuity with which the process of computerising legislative procedures has been pursued. See M. PIETRANGELO, *Tecniche normative e informatizzazione nelle assemblee legislative regionali*, in *Oss. fon.*, no. 2/2022, p. 321 ff.

[59] '*Large language* models' are computational models of machine learning, trained on extremely large text *corpora*, capable of generating, completing and interpreting natural language with remarkable consistency and syntactic-semantic sophistication. Among the best-known and most widespread examples of conversational interfaces based on such models is the 'ChatGPT' programme, developed by the private company OpenAI.

[60] For all, see V. CRISAFULLI, *Disposizione (e norma)*, in *Enc. dir.*, XIII, Giuffrè, Milan, 1964, p. 195 ff.

[61] M. HILDEBRANDT, *Law as Computation in the Era of Artificial Legal Intelligence. Speaking Law to the Power of Statistics*, in *Univ. Tor. Law J.*, no. 1/2018, p. 12 ff.

[62] The 'SAVIA' project, promoted by the Legislative Assembly of the Emilia-Romagna Region, in collaboration with the Cineca Consortium and the Universities of Bologna and Ferrara, fits into this perspective. One of the initiative's priority objectives is to improve the efficiency of the drafting procedures for regional legislative texts and, consequently, the overall quality of legislative production, both from a formal and substantive point of view, through the use of applications based on artificial intelligence technologies. For further information, see: F.G. CAMPODONICO, *L'uso dell'intelligenza artificiale per il miglioramento e l'elaborazione degli atti normativi da parte della Regione Emilia-Romagna*, in *Oss. fon.*, no. 2/2024.

[63] *Natural language* generation is a branch of artificial intelligence that deals with the automatic generation of natural language texts from raw or structured data. The aforementioned *large language models* are currently the most advanced technological infrastructure for the implementation of *natural language generation* systems,

preliminary drafts into complete bills, but also, and above all, to influence legislative output by formulating amendments generated with the assistance of artificial intelligence, in full compliance with the rules of legislative technique.

Opening up legislative *drafting* to artificial intelligence would ultimately result in a significant improvement in the clarity, intelligibility and, more generally, the linguistic and stylistic quality of parliamentary legislative texts. Such a qualitative leap in the legislative production of the Chambers could enable them to gradually regain a more central position in *the legislative process*: on the one hand, strengthening their ability to have a transformative impact on government initiatives; on the other, allowing them - at least in part - to regain an active role in the legislative initiative phase, which is currently the de facto prerogative of the executive branch.

Although likely to generate the above-mentioned benefits, the introduction of algorithmic tools into the legislative drafting process would not be without potential critical issues, which require careful assessment.

First of all, the lexicon adopted by advanced *editing* tools would, by its very nature, be more artificial[64] than the conceptual framework of traditional legal language[65]. In order to function effectively, such systems would in fact have to codify regulatory materials into invariable formulas, translating - as already noted - the content of the law into a set of structured data. This process of 'datafication' would inevitably involve a shift from the current semantic approach to a purely syntactic one, thus reducing the complexity of the legal phenomenon to static patterns that can be interpreted by *the source code*[66].

In even more explicit terms, the adoption of a legal language rigidly standardised by programmers for technical reasons would risk reconfiguring the legislative environment, limiting the ability of the automatic editor to account for the many facets of a constantly evolving society.

Furthermore, since artificial intelligence operates by processing past information, and therefore learns exclusively from the past[67], regulatory writing algorithms would tend to take an inherently retrospective and conservative approach. Such an approach would be at odds with the dynamic nature of law, which is not limited to regulating the present but constantly looks to the future, rejecting any form of crystallisation into monolithic and immutable patterns[68].

Furthermore, the integration of artificial intelligence tools into the legislative process could lead to a reduction in the autonomy of parliamentarians' judgement, as well as a reduction in their political discretion. This risk would manifest itself, in particular, through a form of *hypernudge*[69]: an algorithmic mechanism that, rather than merely supporting the formal drafting of provisions, would also end up influencing their substantive content through textual suggestions, similar to a *recommender system*[70].

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thanks to their ability to produce coherent, contextually relevant and syntactically sophisticated textual content.

[64] See Y.M. CITINO, *L'intelligenza artificiale applicata ai processi decisionali parlamentari: una griglia di funzioni e una stima dei rischi per la neutralità delle tecnologie*, cit., p. 660.

[65] See J. OSTER, *Code is code and law is law: the law of digitalisation and the digitalisation of law*, in *International Journal of Law and Information Technology*, no. 2/2021, p. 101 ff.

[66] A. CERRI discussed this aspect in *Spunti e riflessioni sull'impiego dell'Intelligenza Artificiale nei procedimenti giuridici*, in *Dir. pubbl.*, no. 1/2023, p. 39 ff.

[67] This limitation of artificial intelligence is highlighted by S. PIETROPAOLI, *Verso un legislatore non umano? Brevi riflessioni su alcuni problemi di diritto computazionale*, in *Oss. fon.*, no. 2/2022, p. 408.

[68] For all, G. ZAGREBELSKY, *Il diritto mite. Legge, diritti, giustizia*, Einaudi, Turin, 1992, p. 13 ff.

[69] C. ARRUZZOLI discusses the risk of algorithmic *nudging* in *Intelligenza artificiale e nudging. Riflessioni intorno al principio di non esclusività della decisione algoritmica*, in F. FABRIZZI, L. DURST (eds.), *Controllo e predittività. Le nuove frontiere del costituzionalismo nell'era dell'algoritmo*, Editoriale Scientifica, Naples, 2024, esp. p. 75 ff.

[70] The issue is highlighted by Y.M. CITINO, *L'intelligenza artificiale applicata ai processi decisionali parlamentari: una griglia di funzioni e una stima dei rischi per la neutralità delle tecnologie*, cit., p. 670, which

This would result in a progressive downsizing of the drafting capacity of elected representatives, whose margin for intervention would be increasingly subject to computational dynamics.

Finally, there would be a risk of altering the democratic balance, which could have a distorting effect on the outcome of elections as a result of a possible technological gap between political forces[71]. In particular, parties that decide to invest more heavily in algorithmic tools for managing legislative initiatives and amendment proposals could acquire a capacity to influence parliamentary activity that is disproportionate to that legitimised by the electoral consensus actually obtained.

On closer inspection, overcoming the shortcomings highlighted would require the development of innovative operational solutions, the concrete implementation of which would require substantial financial investment.

Firstly, in order to avoid the risk of restricting parliamentarians' freedom of expression and writing styles within predefined patterns - as a result of the use, in a markedly *data-driven* context, of excessively rigid and formalistic language by artificial intelligence - it would be desirable to design *tailor-made* technologies specifically calibrated for the parliamentary environment. Computer applications dedicated to the automatic processing of legislative texts should, in fact, be significantly more sophisticated than the tools commonly used in commercial or, more generally, extra-parliamentary contexts[72].

In particular, such applications should be designed from the outset according to an infrastructure capable of intercepting the nuances and semantic ambiguities inherent in legal language, so as to facilitate the formulation of regulatory statements that are sufficiently flexible to adapt, through the use of evolutionary interpretation techniques[73], to the complexity of the social context and its incessant transformations[74]. In this perspective, it would be desirable for technologies intended for legislative *drafting* activities to be developed as proprietary software, based on closed source architectures, according to an in-house development model, entrusted to the administrative structures of the Chambers - in particular the IT Services - so as to fully exploit the design and operational skills present within the parliamentary apparatus[75]. This choice of method could be further strengthened through structured collaboration with public research bodies, such as inter-university consortia - for example, CINECA, which has the computing power of the 'Leonardo' supercomputer - or the National Research Council (CNR).

Secondly, in order to mitigate the risk of digital applications 'capturing'[76] the legislative drafting process, it would be advisable to adopt specific transparency mechanisms aimed at making the contribution of artificial intelligence clearly recognisable. This objective could be pursued through the

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draws a parallel with the *recommender systems* currently used in commerce and *marketing*.

[71] On the relationship between political parties and new technologies, see G. DI COSIMO, *In origine venne Rousseau. Le regole dei partiti sull'uso delle tecnologie digitali*, in ID. (ed.), *Processi democratici e tecnologie digitali*, Giappichelli, Turin, 2023, p. 1 ff.

[72] Y.M. CITINO, *Leveraging automated technologies for law-making in Italy: Generative AI and constitutional challenges*, cit., pp. 18-19.

[73] For all, S. BARTOLE, *Living constitution v. costituzione vivente. Una rassegna tra dottrina americana e dottrina italiana*, in *Dir. pubbl.*, no. 1/2023, p. 3 ff.

[74] This is highlighted by F. GALLI, G. SARTOR, *L'utilizzo dei big data e dell'IA per una migliore qualità della regolamentazione*, in *Oss. fon.*, no. 3/2022, p. 343.

[75] Some insights on this subject can be found in E. GRIGLIO, C. MARCHETTI, *La "specialità" delle sfide tecnologiche applicate al drafting parlamentare: dal quadro comparato all'esperienza del Senato italiano*, cit., pp. 378-379.

[76] The expression used here is borrowed from A. SIMONCINI, *L'algoritmo incostituzionale: intelligenza artificiale e il futuro delle libertà*, in *BioLaw J.*, no. 1/2019, p. 69, according to which 'once an automatic decision-making system has been introduced into a human decision-making process, the automatic system tends, over time, to capture the decision itself', not so much 'for reasons of scientific value, predictive accuracy or technical reliability of the automatism, but eminently for reasons of practical convenience' (*ibid*., p. 81).

introduction of advanced systems for tracking changes and additions proposed by automatic legislative text *editors*, so as to ensure a clear distinction between such contributions and those independently developed by parliamentarians[77].

At the same time, it would be appropriate to introduce an explicit obligation to declare the use of algorithmic components at each stage of the legislative process, accompanying legislative texts with specific explanatory *reports* providing a clear and analytical representation of the extent and nature of the interventions attributable to artificial intelligence[78].

Thirdly, the possible technological *gap* between the different parties could be bridged by institutionalising tools with automated *editing* functions within specific parliamentary structures, whether physical or IT-based, ensuring that all parliamentary groups have equal access to them. This solution would ensure uniform and regulated access to the potential offered by artificial intelligence in the legislative *drafting* process, helping to mitigate any disparities attributable to the different technological investment capacities of political forces.

Having outlined some potential operational solutions aimed at resolving the problems associated with the application of artificial intelligence-powered technologies in the drafting of legislative texts, it now seems appropriate to analyse how the specificities *of the legislative process* and its technicalities, which have a decisive impact on the scope of parliamentary *drafting*, could affect the practical possibility of using such technologies.

Unlike the administrative process, the legislative process has peculiarities that significantly reduce its degree of predictability and rationality.

Reference is made, in particular, to the intrinsic characteristics of elasticity and flexibility[79] - or, more precisely, of 'availability'[80] - inherent in parliamentary law, which determine, even during *the* legislative *process*, the continuous integration and, at times, derogation of the provisions of parliamentary regulations through the use of established or innovative institutions: from the role of parliamentary precedent[81] to the *'nemine* contradicente' clause[82], from the 'procedural use of work planning'[83] to the 'substantially unlimited discretion of the interpretative jurisprudence of the President of the Assembly'[84].

Added to this is the high degree of informality and politicality that characterises many of the decisions taken in the legislative process. Clear examples of this are the adoption of deliberately ambiguous and indeterminate regulatory formulations, the result of linguistic compromises, as well as the mechanisms for the presentation, examination and voting on amendments[85], which often fall

[77] On the subject of *traceability* applied to artificial intelligence - understood as the possibility of reconstructing the origin and the material author, human or artificial, of a given contribution - please refer to the analysis by M. MORA-CANTALLOPS, S. SÁNCHEZ-ALONSO, E. GARCÍA-BARRIOCANAL, M.A. SICILIA, *Traceability for Trustworthy AI: A Review of Models and Tools*, in *Big Data Cogn. Comput.*, no. 2/2021, p. 1 ff.

[78] On this point, Y.M. CITINO, *Leveraging automated technologies for law-making in Italy: Generative AI and constitutional challenges*, cit., p. 18.

[79] M. MANETTI, *La legittimazione del diritto parlamentare*, Giuffrè, Milan, 1990, p. 8 ff. and, more recently, ID., *Le modifiche tacite al disegno costituzionale del procedimento legislativo*, in *Quad. cost.*, no. 3/2021, p. 531 ff.

[80] G.U. RESCIGNO, *Le convenzioni costituzionali*, CEDAM, Padua, 1972, p. 156.

[81] R. IBRIDO, *L'interpretazione del diritto parlamentare. Politica e diritto nel "processo" di risoluzione dei casi regolamentari*, FrancoAngeli, Milan, 2015.

[82] With regard to the *'nemine* contradicente' clause - the mechanism that allows the Chambers to disapply or derogate from their own regulations in the absence of opposition from members - see R. IBRIDO, *Clausola del nemine contradicente*, in *Rass. parl.*, no. 2/2011, p. 367 ff.

[83] Thus, verbatim, L. CIAURRO, *Costituzione e diritto parlamentare: un rapporto double face*, in *Oss. fon.*, no. 2/2018, p. 10.

[84] *Ibid*.

[85] See Art. 86 ff. Chamber of Deputies Regulations; Art. 95 ff. Senate Regulations. For further information, see G. PICCIRILLI, *L'emendamento nel processo di decisione parlamentare*, CEDAM, Padua, 2008.

outside strict procedural logic, responding instead to contingent political calculations[86].

All these peculiarities, which are inherent *in the legislative process*, could constitute an obstacle to the application of advanced technologies in the drafting of legislative texts, which would require, on the contrary, structurally coherent, linear and, at least in part, predictable decision-making processes[87]. Consequently, these specific features, which cannot be addressed by an exclusively digital or automated approach, would necessarily require a human interpretative approach in order to be fully decoded[88].

From this perspective, as already highlighted[89], it would be essential to establish, within the parliamentary administration, a specific office responsible for providing adequate technical support to elected representatives and, more generally, to the legislative staff of parliamentary groups[90].

Such an operational unit, making use of highly specialised parliamentary advisers, should be responsible - in committees as well as in the Assembly - for verifying and reviewing legislative formulations produced using regulatory *drafting* technologies, ensuring their compatibility with the specificities that permeate the decision-making activity of the Chambers, without, however, interfering in choices of a strictly political nature.

In essence, the parliamentary administration should be assigned the role of authentic 'guardian' of digital transformation in the legislative drafting process, with the task, on the one hand, of actively promoting the use of AI-based legislative *drafting* tools and, on the other, of ensuring constant training support for parliamentarians and their staff, so as to guarantee the effective, informed and fully conscious use of these tools.

In addition to these considerations, it should be noted that the use of algorithms in the drafting process could, in certain circumstances, constitute an obstacle to the effective conduct of parliamentary debate.

A case in point occurred during the 17th legislature, during the examination of the constitutional bill for the revision of Part II of the Constitution (A.S. No. 1429 - the so-called 'Renzi-Boschi' constitutional reform). In September 2015, opposition senators from the 'Lega Nord' party, Calderoli and Crosio, submitted over 82 million amendments, generated by an algorithm designed to automatically produce proposed textual changes, with the aim of obstructing the amendment process. The programme, operating by simply replacing terms and punctuation marks, generated an endless amount of amendments that were formally distinct in terms of language but essentially overlapping in terms of the content of the proposed changes[91].

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[86] Emblematic, in this sense, are the degenerations to which current parliamentary practice can lead, starting with the abuse of maxi-amendments, which result in the complete rewriting of legislative texts for reasons of procedural economy related to the presentation and voting on questions of confidence. No less problematic is the practice of so-called 'matryoshka decrees', i.e. the merging of a number of decree-laws during conversion, which became particularly widespread during the health emergency. Added to this is the tendency to adopt measures - in particular decree-laws - with *omnibus* content, whose formulation extends to a disorganised and indistinct plurality of material areas, a phenomenon that has become more pronounced not only in the context of the pandemic, but also in the implementation of the objectives set out in the PNRR.

[87] In this regard, E. GRIGLIO, C. MARCHETTI, *La "specialità" delle sfide tecnologiche applicate al drafting parlamentare: dal quadro comparato all'esperienza del Senato italiano*, cit., pp. 375-376.

[88] *Ibid*.

[89] See *supra*, para. 2.

[90] In doctrine, a proposal has also been put forward to establish a bicameral parliamentary committee on artificial intelligence and the use of *big data* in the activities of the Chambers, with the aim of promoting the development of technological innovations that are more in line with the specificities of the parliamentary environment. See A. MALASCHINI, M. PANDOLFELLI, *PARLTECH. Intelligenza Artificiale e Parlamenti: una prima riflessione*, cit., p. 21.

[91] The amendments in question were not examined in terms of their admissibility, but were declared inadmissible by the then President of the Senate, Pietro Grasso. In a detailed speech delivered during the session of 29

To prevent such '2.0' obstructionist tendencies, a technical solution could be envisaged, involving the integration of advanced software into the applications used by the staff of the Chambers[92]. In particular, the adoption of special algorithmic filters could allow the automatic identification and systematic exclusion of amendments characterised by minimal and repetitive variations from a basic amendment[93].

However, it must be recognised that any form of exploitation of parliamentary institutions, especially in the context of the legislative process, has its roots in the dynamics inherent in the form of government, in the logic of the political party system and, above all, in the degenerative processes that run through them[94].

Attributing responsibility to IT tools would therefore be an inappropriate and misleading simplification.

4. Participation and Lawmaking: Legislative Crowdsourcing

To complete this review, it is worth mentioning one last area of possible application of artificial intelligence *in the legislative process*, namely the structuring of civic consultation in the law-making

September 2015, he specified that the inadmissibility could not be based either on the absence of signatures or on the fact that they had been submitted exclusively electronically and not also in paper form. Instead, the decision was justified by reference to the very high number of amendments, which was considered to preclude, in practical terms, compliance with the timetable set out in the Senate's calendar of work, approved pursuant to Article 55 of the Rules of Procedure.

[92] In order to support the work of the parliamentary offices, an algorithmic sorting system was introduced in the Chamber of Deputies, i.e. software capable of automatically generating the file of amendments, arranging each proposal according to its degree of innovation with respect to the basic text. The Senate uses an application called 'Gestore Emendamenti' (GEM), which, using *natural language processing* technologies, allows amendments to be sorted automatically and the relevant file to be produced, according to a logic similar to that adopted in the Chamber of Deputies. These tools, based on artificial intelligence technologies and now firmly integrated into the legislative activity of both houses of Parliament, enable parliamentary advisers to complete one of the most complex and burdensome stages *of the legislative process* more quickly: the sorting of amendment proposals. It should be noted, however, that the sorting process is not entirely automatic. *The output* produced by the algorithmic systems is a provisional ordering, which is then submitted for verification by parliamentary officials, who are called upon to check its correctness and make any necessary changes for the preparation of the final ordering to be put to the vote. In such a context, the role of human control in validating the algorithmic work is essential. An inaccurate order could compromise the regularity of the voting sequence, altering the logical order of the parliamentary debate, with possible repercussions on the principle of equality between the proposed amendments and, consequently, between their respective proponents. This is because failure to correct algorithmic errors in a timely manner could result in the preclusion or absorption of amendments that, according to parliamentary regulations, should be examined first.

[93] A software programme, at least in part similar, which could constitute a valid starting point for further technological developments, is currently operational in the Senate under the name *'Similis'*. In particular, to support parliamentary offices in the complex task of identifying, selecting and possibly aggregating identical or similar amendment proposals, the Senate, in collaboration with the Institute of Legal Information Theory and Techniques (ITTIG), a structure operating under the aegis of the National Research Council, has developed a computer library based on advanced artificial intelligence techniques, aimed at the automated evaluation of syntactic similarity between texts. The methodology behind this system consists of transforming text fragments into multidimensional vectors, which are then compared with each other by measuring the vector distance, according to defined and statistically validated parameters. In summary: the smaller the vector distance between two fragments, the greater their syntactic similarity. Once vectorisation has been performed, the amendments are aggregated into *clusters* using hierarchical clustering algorithms. This approach avoids the direct comparison of each amendment with every other amendment, allowing homogeneous groups to be quickly identified.

[94] A. CARDONE, *Algoritmi e ICT nel procedimento legislativo: quale sorte per la democrazia rappresentativa?*, in *Oss. fon.*, no. 2/2022, p. 378.

process[95].

In this context, the concept of *'crowdsourcing* policy-making' takes on particular significance. This refers to the use of technological tools aimed at expanding and encouraging the active participation of society in public policy decision-making processes[96]. This approach is based on the sociological theory of 'wisdom of the crowd', according to which, when the political community manages to aggregate and valorise heterogeneous ideas from a plurality of individuals, a form of *'collective* intelligence' is generated, capable of producing more accurate and articulated epistemic outcomes, even superior to those obtainable by the most expert individual[97].

Well, *crowdsourcing* could find a specific application in the legislative process, taking the form of '*crowdsourcing* legislation'[98], a concept that lends itself to being developed along two fundamental lines.

Firstly, this innovative methodology could be exploited in the legislative initiative phase, offering groups of citizens the opportunity to draft bills to be submitted to the Parliamentary Assembly.

To this end, a digital platform could be set up for the collection and presentation of legislative initiatives of popular origin, recognised by Article 71, paragraph 2, of the Constitution[99], designed to allow the attachment of electronic documentation in support of the proposals made. Once published, these proposals could be open to contributions from the community: other citizens would have the right to intervene by providing targeted *feedback* in special forums.

Secondly, *crowdsourcing* could be applied in the preliminary phase of the legislative process, allowing the electorate to actively participate in the drafting of bills under parliamentary consideration, according to a logic similar to that of a collective *editor* of legislative texts[100].

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[95] According to THE INTER-PARLIAMENTARY UNION, *World e-Parliament Report 2024*, October 2024, p. 44, currently 3% of the parliaments surveyed have already adopted artificial intelligence-based applications to facilitate citizen involvement in the legislative process, while 27% say they plan to use them in the near future. Among the most advanced experiences is that of the Brazilian Parliament, which has adopted the 'Ulysses' platform - powered by artificial intelligence systems - to manage comments from citizens on bills under consideration, with the aim of aggregating the contributions received and providing an overall representation of public opinion.

[96] As this is a concept that is rarely used in the context of our legal system and little explored in the national constitutional debate, for a conceptual framework, see T. AITAMURTO, *Crowdsourcing for Democracy: A New Era in Policy-Making*, in *Publications of the Committee for the Future*, Parliament of Finland, Helsinki, No. 1/2012, p. 7 ff.

[97] H. LANDEMORE, *Democratic Reason. The Mechanism of Collective Intelligence in Politics*, in H. LANDEMORE, J. ELSTER (eds.), *Collective Wisdom: Principles and Mechanisms*, Cambridge University Press, Cambridge, 2012, p. 251 ff.

[98] An overview of the literature on the subject is provided by R. RADU, N. ZINGALES, E. CALANDRO, *Crowdsourcing Ideas as an Emerging Form of Multistakeholder Participation in Internet Governance*, in *Policy Internet*, no. 3/2015, p. 362 ff.

[99] A potential area for the use of legislative *crowdsourcing* could also be identified in the context of the right of petition referred to in Article 50 of the Constitution. The introduction of digital platforms could, in fact, facilitate the exercise by citizens of their right to 'request legislative measures' or 'express common needs', thus contributing to the innovation and revitalisation of an institution which, partly due to the sparse regulatory framework (Articles 33 and 109 of the Chamber of Deputies Regulations; Articles 140 and 141 of the Senate Rules), has not been significantly applied in our legal system. This is the direction taken by the recent decision of the Chamber's Rules Committee, adopted in implementation of the new Article 109, paragraph 1, of the Chamber's Rules of Procedure - approved in October 2024 - which introduced the possibility of submitting petitions via a dedicated digital platform ('Online Petitions'), accessible from the Chamber's institutional website via SPID or electronic identity card (*see* CHAMBER OF DEPUTIES, *Disciplina attuativa dell'articolo 109, comma 1, del Regolamento in materia di petizioni*, 19 February 2025).

[100] A prime example is the 'Wikilegis' system adopted by *the* Brazilian *Câmara dos Deputados*, which allows citizens to actively participate in the legislative process by discussing and proposing amendments to the texts of

Through a public computer system, citizens would thus be given the right to consult the bills under discussion[101], express their views, propose editorial changes and offer critical reflections on the appropriateness of regulatory interventions and their purposes. In addition, it would be possible for the same individuals to vote on draft laws, either in their entirety or with reference to individual articles, through a system designed to allow the expression of favourable, unfavourable or abstentionist positions[102].

In essence, legislative *crowdsourcing* would have an impact on the *quantitative* level of political participation, multiplying the opportunities for the social body to be included in the deliberative process leading to the approval of legislative texts and, as a result, significantly expanding the audience of individuals involved in primary legislative activity.

Moreover, if IT tools supporting popular involvement were integrated with an advanced artificial intelligence component, *crowdsourcing* could also have an impact, at least in part, on the *qualitative* level of political participation[103]. The use of machine learning algorithms based on natural language processing would make it possible the complex network of opinions expressed in a fragmented and disorganised manner by individual citizens on dedicated digital platforms to be transformed into primary sources of data, combining them not according to a purely aggregative or juxtapositional logic, but through computational processes capable of returning a structured and rationalised representation of the different positions that have emerged[104].

Through this algorithmic approach to participation, the Chambers would have, already in the initial phase *of the* legislative *process*, a deeper and more articulated understanding of the collective sentiment, social needs and preferences expressed by the electorate[105]. This would result in the possibility of ensuring that legislative policies more closely adhere to the concrete needs of the population.

Overall, the use of *crowdsourcing* enriched by artificial intelligence tools, favouring the opening of parliamentary work to regulatory *input* from citizens, would make it plausible to renew the overlap between the dimensions of representation and representativeness, which have gradually become

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bills under parliamentary consideration. A similar experience is offered by the Chilean *'Congreso* Virtual', a platform that allows users to consult the bills under discussion and express their opinions on them. For further information, see A. CARDONE, *Algoritmi e ICT nel procedimento legislativo: quale sorte per la democrazia rappresentativa*, op. cit., pp. 371-374.

[101] This would further promote the publicity of parliamentary work in the legislative process, in addition to what is already happening (Articles 64(2) and 72(3) of the Constitution; Articles 63-65 of the Chamber of Deputies Regulations; Articles 33 and 57 of the Senate Regulations). This would be a very significant development, since the publicity of parliamentary activities is one of the founding principles of contemporary parliamentarianism.

[102] Unlike the previous phase, relating to legislative initiative, in this second scenario concerning the preliminary phase *of the legislative process*, *crowdsourcing* would be a tool capable of giving rise to intersections and overlaps between popular participation and the legislative activity of Parliament. In this sense, see A. CARDONE, *Algoritmi e ICT nel procedimento legislativo: quale sorte per la democrazia rappresentativa?*, op. cit., p. 371.

[103] Some ideas on this subject can be found in E. STRADELLA, *AI, tecnologie innovative e produzione normativa: potenzialità e rischi*, cit., p. 3356.

[104] For example, the aforementioned 'Ulysses' platform, adopted by the Brazilian Parliament, is capable of handling a high volume of comments from citizens on the bills under consideration, thanks to the use of a machine learning algorithm based on natural language processing techniques. The system analyses the contributions received as a whole, paying particular attention to identifying elements of consensus and dissent relating to each legislative proposal. See COMITATO DI VIGILANZA SULL'ATTIVITÀ DI DOCUMENTAZIONE DELLA CAMERA DEI DEPUTATI, *Utilizzare l'intelligenza artificiale a supporto del lavoro parlamentare*, op. cit., pp. 83-84.

[105] *Crowdsourcing* would therefore be functional to the production of data and information - expressing the opinions and demands of citizens - necessary to support legislative decision-making, establishing a synergistic relationship between the participatory and cognitive dimensions *of the legislative process* (see *above*, paragraph 2).

separated from each other over time[106]. This convergence would result in a *surplus* of democratic legitimacy for the decisions taken by the legislative circuit[107]. This democratic added value would, in turn, translate into an *empowerment* of the constitutional role of Parliament in the field of legislative choices[108], contributing, in perspective, to the gradual restoration of its centrality with respect to the executive body.

Of course, the establishment of electronic channels aimed at promoting an innovative form of 'participatory legislative process' would not be without certain risks, largely attributable to the difficulties associated with its practical implementation.

A first, obvious critical issue would be the so-called '*digital divide*', i.e. the gap - infrastructural, economic, social, cultural and, as far as we are concerned here, also political - that separates those who have access to the Internet, the technological tools and the skills necessary for the informed and effective use of digital infrastructures, from those who do not[109]. This would be a significant obstacle in terms of substantive equality, likely to weaken the democratic legitimacy of the final product of *crowdsourcing*. In fact, the latter could lead to a partial - and potentially distorted - representation of collective opinions, indirectly excluding the most vulnerable groups, such as the elderly, the economically disadvantaged or residents of geographical areas with low connectivity, precisely because of the fragile conditions that characterise their social position[110].

A second critical issue concerns the selection of contributions deemed relevant and significant to be brought to the attention of the legislator, which is entrusted to automatic moderation mechanisms based on artificial intelligence algorithms. Such filtering mechanisms would risk translating into forms of algorithmic censorship, potentially capable of thwarting the participatory aims of *crowdsourcing*, as they would involve selective choices - concerning, for example, words, expressions or entire subject areas - based on discretionary assessments that are far from neutral in political, let alone legal, terms, and in any case exceed the mere function of quantitative data processing[111].

A third critical issue concerns the potential manipulability of the results deriving from *crowdsourcing* activities[112]. This risk could materialise not only as a result of the now pervasive disinformation campaigns that permeate much of contemporary public debate[113], but also through more subtle and insidious forms of interference. These include, on the one hand, the alteration of opinions

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[106] The adoption of legislative *crowdsourcing* would refute the arguments of those who consider it technically impracticable to involve citizens directly beyond the electoral process or the binary logic of referendums. In this regard, see Y.M. Citino, *L'intelligenza artificiale applicata ai processi decisionali parlamentari: una griglia di funzioni e una stima dei rischi per la neutralità delle tecnologie*, cit., p. 669.

[107] Some insights on this subject can be found in H.S. CHRISTENSEN, M. KARJALAINEN, L. NURMINEN, *Does Crowdsourcing Legislation Increase Political Legitimacy? The Case of Avoin Ministeriö in Finland*, in *Policy Internet*, no. 7/2015, p. 25 ff.

[108] M. LASTOVKA, *Crowdsourcing as a new instrument in policy making: making the democratic process more engaging*, in *Eur. View*, no. 1/2015, p. 93 ff.

[109] This is highlighted by E. CATELANI, *La e-democracy come strumento per l'attivazione della partecipazione dei soggetti interessati alla formazione degli atti normativi e delle politiche europee*, in *Oss. fon.*, no. 2/2023, pp. 213-214.

[110] In the event of effectively limited participation in *crowdsourcing* activities, there would be a risk of what has been effectively defined as a '*legitimacy paradox*': although public consultation is conceived as a tool aimed at strengthening the legitimacy of the legislative act, it could, in practice, produce counterproductive effects. On this point, see P. POPELIER, *Governance and Better Regulation: Dealing with the Legitimacy Paradox*, in *Eur. Public Law*, No. 3/2011, p. 555 ff.

[111] See Y.M. CITINO, *L'intelligenza artificiale applicata ai processi decisionali parlamentari: una griglia di funzioni e una stima dei rischi per la neutralità delle tecnologie*, cit., p. 653.

[112] On the risks of digital manipulation of the electorate, see M. MANETTI, *Costituzione, partecipazione democratica, populismo*, in *Riv. AIC*, no. 3/2018, pp. 389-391.

[113] F. DONATI, *Internet e campagne elettorali*, in *federalismi.it*, no. 16/2019, esp. p. 3 ff.

actually expressed on *online* platforms, due to the artificial insertion of content generated by *bots* and *trolls*[114]; on the other hand, possible interference by foreign government actors, conveyed through cyberattacks, whose danger lies in their ability to influence the formation of collective consensus in a hidden and systemic way.

However, these problems could be overcome, or at least mitigated, by taking appropriate measures.

First of all, possible distortions of participation attributable to *the digital divide* could be addressed through the adoption of solutions on both the technological and public policy fronts[115].

In this regard, it would be necessary to enhance universal access to the Internet through infrastructure investments aimed at ensuring stable and efficient connectivity even in peripheral or geographically disadvantaged areas of the country. At the same time, it would be essential to promote computer and digital literacy programmes aimed at the sections of the population most at risk of exclusion, with the aim of strengthening their basic technological skills and enabling them to participate effectively in decision-making processes in the digital environment[116].

If implemented in a systematic and coordinated manner, such measures would contribute significantly to reducing the *digital divide*, giving *crowdlaw* greater representativeness and, with it, stronger democratic legitimacy.

Furthermore, in order to prevent the risk of algorithmic censorship in *crowdsourcing* initiatives, it would be essential to complement automatic moderation systems with adequate transparency and control mechanisms. In particular, the introduction of algorithmic *audit* tools, both *ex ante* and *ex post*, based on the use of the aforementioned *explainable AI* techniques[117] could be envisaged. Such tools would make the selection processes followed by moderation algorithms more understandable and verifiable, allowing for the identification of any discrimination, arbitrary exclusion or unjustified restrictions on freedom of expression.

This could be accompanied by the recognition of users' right to consult transparent documentation illustrating the criteria underlying the exclusion of specific content, as well as to activate[118] dispute procedures capable of triggering a second algorithmic evaluation based on parameters different from those initially applied.

Such measures would help to safeguard the inclusive nature of the participatory process, ensuring its effective openness to the pluralism of social demands.

Furthermore, to counter the danger of manipulation of the results of *crowdsourcing* initiatives, it would be possible to use advanced technological solutions aimed at guaranteeing the authenticity and traceability of the contributions made by the political community on digital platforms. In this perspective, the adoption of identity verification systems - based, for example, on multi-factor authentication mechanisms, including biometric technologies such as facial recognition[119] and certified

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[114] Added to this is the risk that, on the digital platforms used for *crowdsourcing*, forms of political *microtargeting* may develop - as the *Cambridge Analytica* case has emblematically demonstrated - consisting in influencing specific segments of the electorate through the targeted sending of messages, comments or observations, calibrated to individual preferences and personal characteristics. See E. CATERINA, *La comunicazione elettorale sui social media tra autoregolazione e profili di diritto costituzionale*, in *Oss. fon.*, no. 3/2021, p. 1394 ff.

[115] For further information, see the analysis by P. COSTANZO, *Miti e realtà dell'accesso a Internet. Una prospettiva costituzionalistica*, in P. CARETTI (ed.), *Studi in memoria di Paolo Barile*, Passigli, Florence, 2013, p. 9 ff.

[116] On these aspects, see M. OLIVETTI, *Diritti fondamentali e nuove tecnologie: una mappa del dibattito italiano*, in *Rev. Estud. Inst.*, no. 2/2020, esp. p. 408 ff.

[117] See *above*, para. 2.

[118] On the need to provide users with effective tools to challenge algorithmic decisions, including through systems based on *counterfactual explanations*, see S. WACHTER, B. MITTELSTADT, *Counterfactual Explanations without Opening the Black Box*, in *Harv. J. Law Technol.*, no. 2/2018, p. 841 ff.

[119] G. MOBILIO, *Facial Recognition Technologies: Threats or Opportunities for Democracy?*, in N. MENÉNDEZ

digital credentials such as SPID[120] - would significantly reduce the impact of *bots*, *trolls* or anonymous individuals motivated by manipulative intentions.

At the same time, the use of algorithmic tools for periodic monitoring, capable of detecting anomalous behaviour, repetitive patterns or suspicious coordinated activities, would make it possible to identify any attempts to distort public debate, whether attributable to internal dynamics or external interference with the IT platform in question, even if carried out in a subtle or covert manner[121].

In the context outlined above, the use of *blockchain* technology could also play a significant role[122]. Thanks to the cryptographically protected, chronologically ordered and unalterable recording of data collected in a distributed ledger (DLT), this technology would guarantee the inviolability of the *crowdsourcing* mechanism, making every contribution verifiable and impossible to alter retrospectively[123].

The integration of all these measures would ultimately contribute to protecting the authenticity of *online* civic debate[124] and safeguarding the integrity of the participatory process from undue interference.

More generally, the technological safeguards outlined above should necessarily be accompanied by constant and qualified human supervision, aimed at preventing possible algorithmic imbalances and discrimination, which are likely to arise according to the dynamics already illustrated[125]. In this perspective, as repeatedly highlighted[126], it would be essential to set up, within the parliamentary administration, an office dedicated to providing technical and specialist support in the analysis and moderation of requests from the virtual community.

In other words, the process of selecting requests that are actually worthy of attention, verifying their reliability and feasibility, reformulating them if necessary, and drafting a comprehensive and coherent final report to be submitted to the relevant parliamentary committees could not be entirely entrusted to artificial intelligence, but would necessarily require the qualified contribution of highly specialised parliamentary advisers[127].

Such human oversight would, in essence, be an indispensable element in ensuring the methodological correctness of the entire participatory process, guaranteeing its compliance with the principles of transparency, impartiality and inclusiveness, as well as its consistent integration with the rules and practices of parliamentary law.

Beyond the specific negative implications generated by *crowdsourcing legislation*, as well as the

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GONZÁLEZ, G. MOBILIO (eds.) *Next Democratic Frontiers for Facial Recognition Technology (FRT)*, Springer, Cham, 2025, p. 13 ff.

[120] On this subject, see F. RICCIULLI, *I diritti digitali: verso un'identità unica europea*, in *Dir. pubbl. eur. ras. online*, no. 1/2024, esp. p. 194 ff.

[121] On the monitoring of coordinated and anomalous activities in digital contexts, see B. DE CLERCK, J.C. FERNANDEZ TOLEDANO, F. VAN UTTERBEECK, L.E.C. ROCHA, *Detecting coordinated and bot-like behaviour in Twitter: the Jürgen Conings case*, in *EPJ Data Sci*, no. 1/2024, p. 1 ff.

[122] For all, P. DE FILIPPI, A. WRIGHT, *Blockchain and the Law: The Rule of Code*, Harvard University Press, Cambridge, 2019.

[123] With regard to the potential applications of *blockchain* technology in parliament, see Y.M. CITINO, *Blockchain Technology in Parliamentary Voting Procedures*, in *Perspect. Fed.*, no. 2/2024, p. 1 ff.

[124] On this subject, see P. VILLASCHI, *Rappresentante e rappresentato al tempo della rivoluzione digitale*, Giappichelli, Turin, 2024, esp. p. 114 ff.

[125] See *above*, para. 2.

[126] See *above*, paras. 2 and 3.

[127] A particularly significant example is provided by the aforementioned Brazilian 'Wikilegis' system, in which, at the end of the participatory process, special 'legislative advisers' - officials working in the Chamber of Deputies - exercise a control and filtering function on the content proposed by the virtual community, assessing its feasibility and reformulating the proposals submitted. Following the consultation, these advisers draw up a summary of the contributions received in the form of a 'final report', which is forwarded to the relevant parliamentary committees. On this point, see A. CARDONE, *Algoritmi e ICT nel procedimento legislativo: quale sorte per la democrazia rappresentativa*?, cit., p. 372.

possible abstract solutions that can be envisaged, what ultimately deserves to be emphasised is the debate - still open - about the compatibility of this participatory practice, an expression of so-called *e-democracy*, with the traditional institutions of representative democracy on which the Italian constitutional order is based[128]. It has been observed that, where a legislative initiative - or an amendment proposal - is formed outside the parliamentary chambers and derives not so much from human elaboration as from the application of algorithmic systems capable of aggregating and synthesising, potentially, thousands of preferences and orientations expressed through *online* votes and comments, the democratic legitimacy of representation would be weakened, while the assumption of political responsibility connected with the electoral mandate would risk becoming extremely blurred and diluted[129].

In the author's opinion, this feared risk does not appear to be well-founded. In other words, it does not seem that the use of *crowd law* could irreversibly lead to a dystopian scenario of 'digital democracy'[130] that is completely disintermediated.

On closer inspection, the use of artificial intelligence to systematise manifestations of popular participation would be a functional means of promoting the emergence, organisation and structuring of collective opinions, thus contributing to the realisation of society's aspiration to actively participate in the formation of legislative acts[131]. This technological use - inspired by a participatory perspective, consistent with the spirit of Article 3 of the Constitution[132] - would not, however, interfere with the proper function of parliamentary representation[133].

Elected representatives could, in fact, take advantage of the opportunities offered by new participatory processes supported by artificial intelligence, freely drawing on the wealth of proposals developed through computerised platforms in order to guide and enrich their political actions[134] . However, the discretion of these representatives in accepting or rejecting the requests that emerge would remain fully unaffected, even if supported by a significant number of citizens. By virtue of their decision-making autonomy and the prohibition of binding mandates *under* Article 67 of the Constitution, parliamentary could legitimately consider that these demands are not worthy of legislative translation and, consequently, decide not to comply with them, assuming political responsibility for this before the electorate[135].

The crucial issue, therefore, lies in the indispensable centrality of parliamentary representation[136].

Crowdsourcing - understood as a '2.0' version of collective intelligence, enhanced by artificial intelligence - could certainly be a valuable aid to the law-making process, capable of increasing its

[128] The debate on this issue is broad and multi-layered; suffice it to mention, by way of example, P. CIARLO, *Democrazia, partecipazione popolare e populismo al tempo della rete*, in *Riv. AIC*, no. 2/2018, p. 1 ff.

[129] In this regard, A. CARDONE, *Algoritmi e ICT nel procedimento legislativo: quale sorte per la democrazia rappresentativa?*, cit., pp. 380-381, highlights the risk that parliamentarians may be induced to shirk their political responsibility by pandering to popular sentiment as expressed through *crowdsourcing* platforms.

[130] On this formula, P. COSTANZO, *, La «democrazia digitale» (precauzioni per l'uso)*, in *Dir. pubbl.*, no. 1/2019, p. 71 ff.

[131] As P. COSTANZO observes, *La democrazia elettronica. (Note minime sulla c.d. e-democracy)*, in *Dir. inf. inform.*, no. 3/2003, p. 470, the goal should be one 'that allows the people to realise their aspirations as an active element in the decision-making system, without disregarding the function performed by representative assemblies'.

[132] For a similar interpretation of the constitutional provision, see U. ALLEGRETTI, *Basi giuridiche della democrazia partecipativa in Italia: alcuni orientamenti*, in *Dem. dir.*, no. 3/2006, p. 154.

[133] E. STRADELLA, *AI, tecnologie innovative e produzione normativa: potenzialità e rischi*, cit., p. 3366.

[134] Some insights on this subject can be found in L. VIOLANTE, *Postfazione*, in D. DE LUNGO, G. RIZZONI (eds.), *Le assemblee rappresentative nell'era dell'intelligenza artificiale. Profili costituzionali*, cit., p. 304.

[135] G.U. RESCIGNO, *La responsabilità politica*, Giuffrè, Milan, 1967.

[136] For all, E.W. BÖCKENFÖRDE, *Democrazia e rappresentanza*, in *Quad. cost.*, no. 2/1985, p. 227 ff.

legitimacy through injections of popular participation[137], which are all the more relevant in a context such as the current one, marked by a profound crisis of political representation and of parties in their capacity as 'forms and places of political organisation of society'[138]. Nevertheless, it could in no way replace the activity of the Chambers in the exercise of their legislative function, not least because of its tendency to generate contributions that are mostly limited to sectoral and circumscribed issues[139]. In fact, these contributions would lack the systemic and forward-looking vision that is essential for members of a representative assembly, who must be able to negotiate, plan and guide the entire legislative process in a coherent manner.

To simplify the issue as much as possible, it can be agreed that the adoption of highly computerised procedures, based on *AI-based* consultation platforms, can encourage the emergence of expressions of participatory and/or deliberative democracy[140], in a logic that complements representative democracy and promotes a higher degree of inclusiveness in the assembly's decision-making process[141]. However, we must firmly reject the hypothesis, fuelled by excessive emphasis on participation, of a drift towards 'televoting government'. This model, based on a form of 'cyberdemocracy' aimed at giving central importance to a 'hyper-citizen' vested with the power to deliberate on any political issue[142], would in fact lack that indispensable work of *reductio ad unum* - that is, the ability to weigh and reconcile the multiple, even atomistic, demands coming from society - which is at the heart of the legislative process in a representative democracy[143].

Such balancing could not, on the other hand, be delegated to mere algorithms, but rather requires genuine political deliberation, to be carried out within the forums designated for institutional mediation and democratic debate: parliamentary assemblies.

5. Concluding Reflections: Parliamentary Rules and the Balance between Automation and Representation

In light of the results that emerged during the investigation, we can attempt an overall interpretation of them, putting forward some concluding considerations - inevitably partial and provisional, given the rapid evolution of the phenomenon under examination - about the potential impact of algorithmic solutions on the 'great machine of legislation'[144].

The analyses conducted have highlighted how the possible introduction of artificial intelligence into parliamentary decision-making processes is likely to have a significant impact on the political-

[137] In this sense, M. LADU, *Rappresentanza e partecipazione politica nell'era digitale. La crisi strutturale della democrazia italiana e l'impatto delle nuove tecnologie: opportunità da cogliere e criticità da affrontare*, Cacucci, Bari, 2023, p. 195.

[138] The expression is borrowed from A. BARBERA, *I parlamenti*, Laterza, Rome-Bari, 1999, p. 104, who observes that any factor that weakens political parties 'has a negative impact on parliamentary institutions themselves'.

[139] This is highlighted by M. CUNIBERTI, *Nuove tecnologie della comunicazione e trasformazioni della democrazia*, in ID. (ed.), *Nuove tecnologie e libertà della comunicazione*, Giuffrè, Milan, 2008, esp. p. 350 ff.

[140] On this subject, see M. LUCIANI, *Democrazia rappresentativa e democrazia partecipativa e deliberativa*, in L. CARLASSARE (ed.), *La sovranità popolare nel pensiero di Esposito, Crisafulli, Paladin. Atti del Convegno (Padua, 19-21 June 2003)*, CEDAM, Padua, 2004, p. 180 ff.

[141] On the possibility of enriching representative democracy through the integration of instruments specific to deliberative and participatory democracy, see, among others, F. POLITI, *Democrazia rappresentativa versus democrazia diretta. Riflessioni preliminari su democrazia parlamentare, democrazia partecipativa e democrazia deliberativa*, in *Dirittifondamentali.it*, no. 1/2021, p. 542.

[142] See, in this regard, T. BECKER, *Teledemocracy: Bringing Power Back to the People*, in *The Futurist*, December 1981, p. 6 ff.

[143] As N. LUPO points out, *Il Parlamento e la sfida della digitalizzazione*, in *Riv. trim. dir. pubbl.*, 2021, p. 501, the real strength of representative democracy lies in its ability to give rise to a deliberative process aimed at building more widely shared decisions.

[144] The expression is taken from G. FILANGIERI, *La scienza della legislazione. Benjamin Constant, Comento sulla scienza della legislazione*, IPZS, Rome, 1984, p. 27.

institutional *cleavage between* Parliament *and* Government. In fact, it has been pointed out that artificial intelligence applications could represent a technical lever for strengthening the constitutional role of Parliament throughout the three stages of the legislative cycle that define the 'triangular' scope of these considerations: the fact-finding stage, the drafting stage and the participatory stage.

This does not mean, of course, that the use of such generative technologies is, in itself, sufficient to achieve a full relocation of the 'law factory'[145] to the representative chambers[146], such as to completely bridge the gap that has accumulated over time in favour of the executive (the so-called '*executive dominance issue*'[147]). However, it is reasonable to believe that the harmonious integration of artificial intelligence into parliamentary proceedings could enable the Chambers to regain ground in the field of political decision-making, revitalising the use of ordinary legislative instruments and promoting, in the medium to long term, a partial rebalancing of the parliamentary form of government[148], in terms of the conduct of the 'proper legislative process' outlined in Articles 72 et seq. of the Constitution.

On the other hand, it cannot be overlooked that the benefits deriving from the use of algorithmic systems in parliamentary decision-making processes also risk bringing with them a series of constitutionally significant critical issues, which are likely to generate distorting effects on the legislative activity of the Chambers. Far from legitimising technophobic attitudes that lead to an a priori rejection of artificial intelligence in the parliamentary sphere, these critical issues should rather prompt the adoption of a particularly cautious approach to such far-reaching innovations, with appropriate corrective measures being put in place, in accordance with the guidelines outlined in the previous paragraphs[149].

In this sense, in addition to the substantive solutions already considered, it is possible to formulate at least two fundamental methodological principles[150], whose observance should inform, in a preliminary and cross-cutting manner, all phases of the use of artificial intelligence in parliamentary activities, in order to effectively combine technological progress with the constituent values of our parliamentary system: the principle of institutionalisation and that of complementarity.

On the one hand, the *principle of institutionalisation* postulates the establishment of 'tailor-made' artificial intelligence services within specific administrative structures of the Chambers. In this perspective, parliamentary bureaucracy - appropriately trained, equipped with adequate skills and constantly updated, both legally and technologically[151] - should be called upon to play a central role not only in exploiting the opportunities offered by an *AI-powered* legislative process, but, even more so, in the informed management of the risks associated with it[152].

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[145] F. PATRONI GRIFFI, *La «fabbrica delle leggi» e la qualità della normazione in Italia*, in *Dir. amm.*, no. 1/2000, p. 97.

[146] It is therefore unlikely that the progressive spread of technologies based on increasingly advanced forms of artificial intelligence will lead to a genuine rebirth of the legislative process, and more generally of democratic decision-making, as sometimes suggested in doctrine. For further information, see P. CARETTI, A. CARDONE, *Diritto dell'informazione e della comunicazione nell'era della convergenza*, il Mulino, Bologna, 2019, p. 237 ff.

[147] D. CURTIN, *Challenging Executive Dominance in European Democracy*, in *Mod. Law Rev.*, no. 1/2014, p. 1 ff.

[148] A. CARDONE, *"Decisione algoritmica" vs decisione politica. A.I., Legge, Democrazia*, cit., p. 97.

[149] See F. FITSILIS, J. VON LUCKE, F. DE VRIEZE, *Inception, development and evolution of guidelines for AI in parliaments*, in *Theory Pract. Legis.*, 10 March 2025, p. 1 ff.

[150] The need to identify suitable principles to guide the implementation of artificial intelligence in parliament is emphasised by A. FERRARI, *Il Parlamento nell'ecosistema digitale. Significato e implicazioni dell'uso dell'intelligenza artificiale nelle assemblee rappresentative*, in D. DE LUNGO, G. RIZZONI (eds.), *Le assemblee rappresentative nell'era dell'intelligenza artificiale. Profili costituzionali*, cit., p. 65.

[151] E. CARLONI emphasises the importance of training administrative staff in digital skills in *Algoritmi su carta. Politiche di digitalizzazione e trasformazione digitale delle amministrazioni*, in *Dir. pubbl.*, no. 2/2019, pp. 368-371.

[152] In this sense, see V. DI PORTO, C. MARCHETTI, *L'intelligenza artificiale in Parlamento tra politica e*

In particular, every task entrusted to algorithmic systems, as well as every outcome produced by them in the context of parliamentary activities - such as fact-finding analysis, the drafting of legislative proposals or amendments, and the structuring of dematerialised civic consultation processes - should be systematically subject to a precise 'humanity reserve': that is, to the scrutiny and processing of parliamentary officials, both in committee and in the Assembly. This is in order to ensure procedural appropriateness, systematic consistency and content reliability, avoiding blind faith or uncritical approaches to the results provided by automated systems (*automation bias*).

The principle under consideration essentially requires the adoption of a *'human in the loop'* approach (HITL)[153], based on a virtuous interaction between carbon and silicon, between man and machine, in which the parliamentary administration is invested with an active and continuous role in the supervision of algorithmic systems, in order to ensure their full compliance with the stylistic features that characterise the activity of legislative law-making[154].

On the other hand, the *principle of complementarity* implies a conception of artificial intelligence as a 'toolbox' at the service of senators and deputies[155]. In other words, digital technologies used in parliament should play a purely auxiliary and supporting role, limiting themselves to assisting the elected representatives in the exercise of their functions, who would maintain an adequate degree of autonomy with respect to them and, consequently, effective control over the legislative process.

Compliance with this principle is essential to ensure that algorithmic systems - which are structurally alien to democratic logic - can find a place within the legislative process, which bases its legitimacy precisely on the theorem of democratic representation[156]. On the one hand, the Constitution identifies the people as the original source of sovereignty (Article 1 of the Constitution); on the other hand, it regulates its exercise within the forms and limits established by the Constitution itself, providing, with specific regard to legislative production, that this sovereignty finds effective expression through the circuit of general political representation (Articles 48, 67, 70 and 94 of the Constitution).

Adherence to the principle in question therefore requires that the scope of digital solutions compatible with the current constitutional order be strictly limited, excluding any technological development that seeks to redefine the paradigm of legitimacy of primary legislation on grounds that are completely unrelated to the ascending trait of the representative relationship[157], i.e. the conferral - albeit in an increasingly attenuated form today - of electoral investiture[158]. In even more explicit terms, all those algorithmic applications which, instead of representative democracy, take completely alternative criteria as the basis for legislative production must be considered extraneous to the constitutional framework: from the objective rationality of *outputs* deriving from *evidence-based*

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amministrazione, in *Rass. parl.*, no. 2/2024, esp. p. 402 ff.

[153] B. MARCHETTI, *La garanzia dello human in the loop alla prova della decisione amministrativa algoritmica*, in *BioLaw J.*, no. 2/2021, p. 367 ff.

[154] On this subject, see M. PALMIRANI, *A Smart Legal Order for the Digital Era. A Hybrid AI and Dialogic Model*, in *Rag. prat.*, no. 59/2022, p. 633 ff., which, analysing the dynamics of integrating artificial intelligence into regulatory processes, proposes a hybrid and dialogic model aimed at combining automation with human participation, with a view to balancing technological efficiency and democratic guarantees.

[155] A vision of algorithmic decision-making as a subsidiary tool to political decision-making is expressly proposed by A. CARDONE, *"Decisione algoritmica" vs decisione politica. A.I., Legge, Democrazia*, cit., p. 97.

[156] The need to assess the 'constitutional neutrality' of the use of artificial intelligence in parliament - i.e. to 'verify whether the transformation of parliaments through technology ends up altering the delicate balance between representative democracy and other forms of exercising popular sovereignty outlined by the Constitution' - was highlighted by R. IBRIDO, *Evoluzioni tecnologiche o involuzioni costituzionali? La "reingegnerizzazione" del processo di decisione parlamentare*, in *Oss. fon.*, no. 2/2022, p. 296.

[157] On this subject, see F. BILANCIA, *La crisi dell'ordinamento giuridico dello Stato rappresentativo*, CEDAM, Padua, 2000, p. 205 ff.

[158] See A. MORELLI, *Il giudice robot e il legislatore naïf. La problematica applicazione delle nuove tecnologie all'esercizio delle funzioni pubbliche*, in *Consulta online*, *Liber amicorum per Pasquale Costanzo*, 6 August 2020.

legislation, to the presumed axiological superiority of laws written in *AI-assisted* mode, to forms of *crowdlaw* based on *input* from participatory digital tools without any party intermediation[159].

In any case, it should be noted that, net of purely futuristic scenarios connected to the possible achievement of *the* so-called *'technological* singularity' - understood as the evolutionary stage in which, through the transition from *narrow artificial intelligence* (ANI) to *artificial general intelligence* (AGI), algorithmic models would be capable of replicating the cognitive and rational abilities of human beings to the highest degree (*whole brain emulation*)[160] -, there are *currently* no algorithmic applications capable of completely replacing the democratic-representative parliamentary circuit, which, in exercising its legislative function, is called upon to perform an eminently political, and not merely technical, activity[161].

Indeed, no algorithm, as currently known and used, can replicate the activity of comparison, negotiation, composition and synthesis between different *Weltanschauungen*, an essential prerequisite for the regulatory decision-making process[162]. This work of mediation between values - which underpins every legislative decision insofar as it is general and abstract, and which, according to Kelsenian teaching, embodies the very essence of parliamentarianism[163] - belongs, by its very nature, to the sphere of politics and humanity, and is therefore intrinsically resistant to any attempt at automation[164].

Overall, considering the principles of institutionalisation and complementarity together leads to the conclusion that the use of artificial intelligence in the legislative process can be considered constitutionally admissible and, so to speak, 'Parliament-friendly', provided that it is explicitly geared towards supporting, simplifying and strengthening the functions exercised in the institutionalised public sphere. 'Parliament-friendly', only to the extent that it is explicitly aimed at supporting, simplifying and strengthening the functions exercised, in the institutionalised public sphere[165] , by the human actors involved in parliamentary activity, whether they be officials or elected representatives, without altering, reducing or replacing their substantive role.

In any case, in order to avert the risk of hetero-direction or, in any case, of a surreptitious replacement of human legislative activity by artificial intelligence[166], Parliament is required - as appropriately highlighted in doctrine - to initiate, without further delay, a comprehensive 're-engineering' of its regulations[167]. The latter, by virtue of the broad regulatory autonomy granted to the

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[159] Y.M. CITINO, *L'intelligenza artificiale applicata ai processi decisionali parlamentari: una griglia di funzioni e una stima dei rischi per la neutralità delle tecnologie*, cit., p. 670.

[160] *Artificial narrow intelligence*, which is the current form of artificial intelligence, can be defined as a sector-specific technology designed to perform specific tasks, focusing on a single subset of cognitive abilities and operating within well-defined functional areas. In contrast, *artificial general intelligence* represents a purely hypothetical prospect: it aims to reproduce the cognitive flexibility of human intelligence, theoretically enabling it to tackle a variety of intellectual tasks, even those not previously programmed, adapting autonomously to new and complex contexts.

[161] With regard to the vast and complex issue of the intertwining of technology and politics, see, at least, C. SCHMITT, *Le categorie del "politico". Saggi di teoria politica*, il Mulino, Bologna, 1972.

[162] Thus A. CARDONE, *"Decisione algoritmica" vs decisione politica. A.I., Legge, Democrazia*, cit., p. 97.

[163] H. KELSEN, *Das Problem des Parlamentarismus* (1924), Italian translation: *Il problema del parlamentarismo*, in ID., *La democrazia*, il Mulino, Bologna, 1998, p. 160.

[164] In this sense, L.G. SCIANNELLA, *Intelligenza artificiale, politica e democrazia*, in *DPCE online*, no. 1/2022, p. 345.

[165] The terminology proposed by J. HABERMAS, *Faktizität und Geltung. Beiträge zur Diskurstheorie des Rechts und des demokratischen Rechtsstaats* (1992), Italian translation: *Fatti e norme. Contributi a una teoria discorsiva del diritto e della democrazia*, Laterza, Rome-Bari, 2013, esp. p. 384 ff.

[166] See, for example, J. DANHAER, *The Threat of Algocracy: Reality, Resistance and Accommodation*, in *Philos. Technol.*, no. 29/2016, p. 245 ff., which highlights the risks associated with excessive delegation of public decisions to artificial intelligence systems.

[167] The quotation is taken from R. IBRIDO, *Evoluzioni tecnologiche o involuzioni costituzionali? La "reingegnerizzazione" del processo di decisione parlamentare*, cit., p. 292 ff.

Chambers by the Constitution (Article 64 of the Constitution)[168], could legitimately contemplate the introduction, into the legislative process, of the technological solutions listed in the course of the discussion, providing for formalised and standardised procedures capable of ensuring, in line with the tradition of political constitutionalism[169], the necessary balance between the functions of artificial intelligence and the fundamental traits that define our representative democracy.

Such a redesign and reorganisation of the parliamentary decision-making process, inspired by a conscious transition from analogue to digital and aimed at preventing possible anti-parliamentary distortions, should not be limited to only those segments of legislative activity most directly affected by technological innovation - in particular, the fact-finding, drafting and participatory phases - but should involve the entire regulatory framework of the Chambers. In this sense, broad-spectrum action on parliamentary procedures would be necessary, which, as a 'post- metaphysical source of legitimacy' of law[170], could well anticipate and govern the distorting effects emerging from the widespread use of artificial intelligence in the legislative context[171].

It goes without saying that an effective project to reshape parliamentary decision-making procedures and legislative techniques, aimed at adapting them to the paradigms of an '*e-law making process*'[172], is far from easy. The development of Italian parliamentary law has traditionally been characterised by a gradual approach, based on cautious and progressive changes, mostly achieved through limited experimentation and incremental innovations, rather than through systemic reform[173]. In line with this approach, which reflects a deep-rooted distrust of radical solutions, in the five decades since the 1971 parliamentary regulations came into force - which have remained essentially unchanged in their basic structure - there has never been a genuine move away from the method of 'specific amendments'[174] with 'minimal ambitions'[175], repeatedly called for in doctrine, in favour of a process of organic recodification[176].

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[168] A. D'ANDREA, *Autonomia costituzionale delle Camere e principio di legalità*, Giuffrè, Milan, 2004, esp. p. 61 ff.

[169] On which M. GOLDONI, *Che cos'è il costituzionalismo politico?*, in *Dirit. quest. pubbliche*, no. 10/2010, p. 336 ff.

[170] J. HABERMAS, *Faktizität und Geltung. Beiträge zur Diskurstheorie des Rechts und des demokratischen Rechtsstaats*, cit., p. 502.

[171] Emphasises the ability, already demonstrated on other occasions by the Chambers, to react, through their own regulations, to changes in society and the law G. BRUNELLI, *Lo stato dell'arte nel rapporto tra il Parlamento e gli altri organi costituzionali*, in V. LIPPOLIS (ed.), *A cinquant'anni dai Regolamenti parlamentari del 1971: trasformazioni e prospettive. Il Filangieri, Quaderno 2021*, Jovene, Naples, 2021, p. 237.

[172] The expression is taken from L. DI MAJO, *La regolamentazione digitale dell'expertise e del dato tecnico-scientifico in cloud come basi per un futuro e-law making process*, in *Oss. fon.*, no. 2/2022, p. 412 ff.

[173] R. IBRIDO, *Evoluzioni tecnologiche o involuzioni costituzionali? La "reingegnerizzazione" del processo di decisione parlamentare*, op. cit., p. 303.

[174] This method has been described as a form of 'aggressive treatment' of current parliamentary regulations by L. CIAURRO, *Verso una nuova codificazione delle regole parlamentari*, in E. GIANFRANCESCO, N. LUPO (eds.), *La riforma dei Regolamenti parlamentari al banco di prova della XVI Legislatura*, Luiss University Press, Rome, 2009, p. 224.

[175] To quote the expression used by R. IBRIDO, *Prosegue, con ambizioni minime, il percorso di revisione dei Regolamenti parlamentari*, in *Quad. cost.*, no. 2/2022, p. 361 ff.

[176] This cautious and gradual approach was ultimately confirmed in the revision of parliamentary regulations, made necessary by the constitutional reform relating to the reduction in the number of parliamentarians (Constitutional Law No. 1/2020), which amended Articles 56, 57 and 59 of the Constitution. The changes to parliamentary regulations - particularly in the Chamber of Deputies - mainly resulted in the introduction of numerical adjustments, postponing the adoption of long-awaited changes more directly concerning the functioning of the two chambers. For further information on the amendments made to the Senate Rules of Procedure, approved in July 2022, see R. DICKMANN, *La transizione tra XVIII e XIX legislatura: nuovi regolamenti per 'nuove' Camere*?, in *federalismi.it*, No. 24/2022, p. 1 ff. With regard to the revision of the Rules of Procedure of the

In any case, what could be the lever capable of steering the Chambers' action towards a necessary path of regulatory maintenance is the awareness that the value to be preserved does not lie in parliamentary procedures as such - originally shaped according to the patterns of nineteenth-century liberal systems and subsequently adapted to the mass democracies of the last century - but rather in the fundamental principles of representative democracy that these procedures have historically conveyed[177]. These principles are now at risk of being called into question in many ways by the advent of algorithmic tools and therefore require a delicate but indispensable process of updating.

From this perspective, the constitutional innovations that artificial intelligence is likely to trigger in our legal system could represent a virtuous impulse towards a comprehensive reform of the current grammar of parliamentary law. A reform which, while opening up significant elements of innovation, is at the same time capable of preserving the axiological link with the representative paradigm, an indispensable safeguard of the democratic legitimacy of the political function par excellence: the legislative function.

This is, after all, the privileged function that led the Constituent Assembly to place Parliament 'at the centre of the system'[178], as the primary means of constructing social order, and which algorithmic potential - if channelled within coordinates consistent with the logic of political action based on representation - could help to revive.

Chamber of Deputies, see G. SULPIZI, *"Eppur si muove": timide riforme del Regolamento della Camera dei deputati*, in *Nomos*, no. 3/2022, p. 1 ff.

[177] This section incorporates the observation made by N. LUPO, *La rivoluzione digitale e i suoi effetti sull'attività parlamentare*, cit., p. 306.

[178] The reference is to the famous passage contained in Constitutional Court, no. 154/1985, point 5.1 of *the Legal Considerations*.