

# Transparency in algorithmic decision-making: Ideational tensions and conceptual shifts in Finland

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**Abstract.** This article uses a theoretical and methodological framework derived from the political theorist *Quentin Skinner* and the conceptual historian *Reinhart Koselleck* to examine ideational and conceptual tensions and shifts related to the transparency of algorithmic and other automatic governmental decision-making in Finland. Most of the research material comprises national and international official documents and semi-structured expert interviews. In Finland, the concepts of ‘algorithmic transparency’ and other ‘transparency of automatic decision-making’ are situated amongst a complex array of legal, ethical, political, policy-oriented, managerial, and technical semantic fields. From 2016 to 2019 Finland’s Deputy Ombudsman of Parliament and the Constitutional Committee of Parliament pinpointed issues in algorithmic and other automatic decision-making with the consequence that at the turn of 2019 and 2020, the Ministry of Justice started moving towards the preparation of new legislation to resolve these issues. In conclusion and as expected, Finland’s version of the Nordic tradition of the public sphere with established legal guarantees of public access to government documents indeed has both important enabling and constraining effects upon resolving the transparency issues.

Keywords: Transparency, algorithmic transparency, semantic fields, public sphere, publicness, responsibility, democracy, openness

## Key Points for Practitioners

- Solid democracies have different traditions to maintain a functioning public sphere. Therefore, one can expect different national approaches to transparency as concerns algorithmic and other automatic government decision-making.
- Each national tradition may have both enabling and constraining effects to meet the transparency challenges, which makes it necessary to know in depth both types of effects in each country.
- Comparative studies between countries are needed for the proper understanding of algorithmic and related transparency and the generalizability of conclusions concerning any individual country even where the countries in question share important aspects of transparency traditions.

## 1. Introduction

This article was written in response to a call to a journal issue on ‘algorithmic transparency’, which the editors understand to combine sufficient access of the decision-making addressees to the algorithms, and the reasonable intelligibility of the decision outcomes to these addressees (Giest & Grimmelikhuijsen, 2020, 1). The focus of the article lies in governmental ‘algorithmic and other automatic decision-making’, and as to algorithms, covers both those with artificial intelligence and those without. It was also necessary to cover some other relevant aspects of digitalization (see, for instance, Hofmann, 2019). During the

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study process it soon became evident that the Finnish Ministry of Justice had taken preliminary steps possibly to launch the preparation of new legislation that would resolve the outstanding issues with the transparency of algorithmic and other automatic decision-making. This study by and large shares the empirical framing and focusing of the legislation preparation project.

It is our choice to examine transparency in governmental algorithmic and other automatic decision-making putting the focus on ideational and conceptual tensions and shifts (for an example of a suggested analogous although not identical approach, see Dear & Jasanoff, 2010). Our choices also led to selecting as our most general theoretical and methodological starting points the work of the two foremost researchers of ideational and conceptual shifts, namely the British political theorist *Quentin Skinner* (see, for instance, Skinner, 2002), and the German theoretically oriented historian *Reinhart Koselleck* (see, for instance, Koselleck, 2004). We ask the following research question:

What ideational and conceptual tensions and shifts characterize the transparency of algorithmic and other automatic governmental decision-making in Finland's version of the Nordic model of the public sphere and its publicness?

In this article we develop the main argument that boils down to our conclusions on Finland's version of the Nordic tradition of the public sphere with legally guaranteed public access to government documents. This tradition has both enabling and constraining effects upon resolving the transparency issues of algorithmic and other automatic decision-making. On the enabling side, the tradition offers a kind of a roadmap. According to this roadmap, (1) algorithms and other rules of automatic decision-making can be understood in analogous terms as traditional public governmental documents; (2) a responsible individual civil servant has to be found behind each decision made in the name of the government; (3) hearings of the addressees are obligatory before given types of government decisions are made; and (4) the grounds of the decisions have to be explained to the addressees within the limits of real possibilities. However, in some respects this roadmap works less well in the service of policymakers. It constrains, for example, neoliberal, new public management and other economy-, efficiency- and effectiveness-oriented rationalization in government. It also limits the possibility of deploying artificial intelligence and other information technologies in government decision-making.

## 2. A theoretical approach to ideational and conceptual shifts and tensions

Theoretically and methodologically, the general framework of this article is derived from the work of Quentin Skinner and Reinhart Koselleck with the aim of grasping ideational and conceptual tensions and shifts related to the transparency of algorithmic and other automatic decision-making in government. Skinner has suggested that shifts in the prevalence and influence of ideas and concepts occur through the mediation of *performatives*, meaning acts that language users carry out in or by means of language in specific contexts while trying to accomplish their ends (Skinner, 2002, 103–127). In such performative activity the actors may either win, lose, or preserve shares of political or other power (Palonen, 2004, 163–173). Moreover, according to Skinner, the actors may more or less successfully use rhetorical devices to ratchet up the popularity and acceptance of their favored ideas and concepts, and to ratchet down the value of ideas and concepts they oppose (Skinner, 2002, 145–157).

Koselleck has emphasized the proliferation of semantic fields within which either different concepts find their place, or within which concepts spontaneously or after semantic struggles receive meanings which differ from those that these concepts have in other fields (Koselleck, 2004, 75–92). Koselleck has separated a 'horizon of expectations' (*Erwartungshorizont*) and a 'space of experience' (*Erfahrungsraum*),

suggesting that if gaps widen between the horizon and the space, conceptual change becomes likely and quite new concepts or concepts originating from elsewhere possibly fill these gaps (Koselleck, 2004, 255–275; Palonen, 2004, 263–264). Koselleck has also paid attention to what he calls counter-concepts, and has suggested that many counter-concepts may be asymmetrical rather than symmetrical. This means that the juxtaposition between the two types of concepts is partial rather than complete, which indicates that further gaps open up in semantic fields and may possibly be filled (Koselleck, 2004, 155–192).

### 3. Methodology

Because this article relies theoretically upon the work of Skinner and Koselleck, in its methodology the article represents interpretive approaches with their origins in the human sciences rather than using any of the many more recently evolved qualitative methods. We could not envisage a better way to demarcate our research material than to accept the empirical framing of the Finnish Ministry of Justice pre-preparation of new legislation on the transparency of algorithmic and other automatic governmental decision-making, especially as this pre-preparation coincided with our study period.

Our data acquisition procedures had characteristics of ‘data triangulation’ with reliance upon not only one but two principal types of research material (Natow, 2020) supplementing each other (Fusch & Ness, 2015). One main part of the research material was composed of documents, including those of the EU and the Council of Europe, Finland’s Parliament, ministries, and agencies. The other main part was acquired by means of twelve semi-structured interviews carried out from April to June, 2020 (Appendix).

Our decisions on the people to interview built upon the available documentation indicating individuals who are knowledgeable in our topic of examination. To a minor extent we were also snowballing from one interviewee to another by asking about possible further interviewees. Moreover, we included among the interviewees two researchers who were independent of the government as well as a representative of a civil society organization in the domain of data activism. The interviewees comprised three civil servants of legal overseer organizations; two civil servants of policy and legal preparation in key coordinating ministries; four civil servants in the foremost government agencies in which issues of the transparency of algorithmic or other automatic decision-making had arisen; two independent academic researchers; and one representative of a civil society organization. We prepared a semi-structured interview question sheet with prompts concerning five themes: (1) the background of the interviewee; (2) the interviewee’s experiences of promising and problematic cases of transparency in algorithmic or other automatic decision-making; (3) the interviewee’s assessment of the fit of algorithmic and other automatic decision-making to Finland’s Nordic traditions of the public sphere; (4) the interviewee’s points for and against algorithmic and other automatic decision-making; and (5) the interviewee’s opinions on increasing, stabilizing or decreasing algorithmic and other automatic decision-making. The research team worked under its promise to each interviewee that his or her anonymity would be protected, meaning that no interviewee is connected to any specific answers received (Lancaster, 2017).

### 4. A general empirical consideration on the transparency of algorithmic and other automatic governmental decision-making in Finland

Finland’s version of the Nordic tradition of the public sphere emphasizes citizen access to documents prepared or otherwise held by public authorities (*viranomaiden asiakirjat*), and maintaining the respective ‘public sphere’ (in Finnish, *julkisuus*, literally ‘publicness’ resembling the German *Öffentlichkeit*). The

history of this tradition extends from Sweden's early legislation in 1766 during a period that Finland was still part of Sweden (Carlsson & Goldberg, 2017). Finland's concepts of the public sphere have long-time counter-concepts (on this notion, see Koselleck 2004, 165-192) that tend to be asymmetric (which is Koselleck's staple case), such as the following counter-concepts to 'public' (*julkinen*): 'secret' (*salainen*), 'confidential' (*luottamuksellinen*), 'not yet public' (*ei vielä julkinen*), 'private' (*yksityinen*), and 'proprietary' (*yksityisomisteinen*, 'under private ownership'). Equally as in other solid democracies (Hölscher, 1978), in Finland a carefully delineated and well-functioning public sphere comprises the rule, and declaring government dealings secret or postponing their publicness remain exceptions.

Finland has gone through a particularly active period in elaborating its public sphere after the country joined the European Union and increasingly embraced global markets (Erkkilä, 2012). In political and policy language in Finland but not at least thus far in texts of legal norms actually passed, the newer developments have supplemented the long-established legal concepts of 'official documents' and the 'public sphere' with such new concepts as 'transparency' (*läpinäkyvyys* or *transparenssi* in Finnish), 'openness' (*avoimuus*) or 'accountability' (*tilivelvollisuus*; official legal language only knows the concept of *vastuu*, 'responsibility'). Evidence of the absence of the newer concepts from texts of law can be acquired from Finland's public legislation database (Finlex, 2020a). The unofficial English translation of *julkisuus* as 'openness' rather than 'publicness' at the Finnish Ministry of Justice (Finlex, 2020b) has most probably come out by chance. In the present circumstances researchers examining the transparency of algorithmic and other automatic decision-making in Finland's government have to gain a sufficient mastery over several different semantic fields in Koselleck's sense (Koselleck, 2004, 75–92). These include the semantic field of the language of texts of law, and the fields of politics, policy-making, management, business, artificial intelligence, and others. Further, in Koselleck's terms (Koselleck, 2004, 255–275), the rise of new concepts thus far unknown in texts of law actually passed in the Finnish language – including 'transparency', 'openness' and 'accountability' – suggests gaps between horizons of expectation and spaces of experience. This is evidenced by non-legal concepts flowing in to fill conceptual gaps in Finland's political and policy-making practice and also in generally accessible daily and other media contexts. Next, using Skinner's terms, one can pinpoint successful actors using newer non-legal concepts and ratcheting up the popularity of these concepts with the results that these actors have won power shares, although not as strong shares as to make their favored concepts enter texts of law at least thus far (Skinner 2002, 145–157).

How may concepts become rooted in some semantic fields rather than others, and how may resilient concepts end up being used for new objects rather than new concepts being introduced for the new objects? Concerning the rooting aspect, evidence is available that such concepts, although unknown in texts of legal norms actually passed in the Finnish language, as 'transparency', 'accountability', 'openness' and also 'governance' and 'good governance' may certainly proliferate in certain semantic fields. For instance, it is not ruled out that these concepts are used in texts of legal policy-making preceding the ultimate formulation of texts of legal norms (Ananny & Crawford, 2018). It can also be seen as possible that such concepts as those indicated find use in the semantic field of the promotion of democratic deliberation (Schmidt & Wood, 2019; König & Wenzelburger, 2020). However, the concepts may also find their way into such semantic fields as those of the globalization of commercial markets and business companies, governmental neo-liberal governance, and public and general management and various technical expertise domains (Blomgren & Sahlin, 2007; Erkkilä, 2012; Peters et al. 2012). One can also envisage that the concept of 'transparency' of algorithmic and other automatic governmental decision-making may be situated in one or more semantic fields at the same time (for the notion, see Koselleck 2004, 75–92). Such fields may include, for instance, the field of legal policy-making, the field of ethical concepts, the field of

democratic deliberation, the field of proprietary rights, and, last but not least, the field of the technical and professional facilitation of mass decision-making by means of artificial intelligence and other means (Koivisto, 2016; Wachter et al., 2017a; Wachter et al., 2017b; Mittelstadt et al., 2016). For the latter aspect on the possible resilience of concepts one can envisage such possibilities as those of long-established legal concepts the numbers and types of their referents while new phenomena appear (Larsson, 2013).

## **5. The empirical issues of the transparency of algorithmic and other automatic decision-making in the national government in Finland**

### *5.1. Reception of Council of Europe and European Union concepts related to algorithmic transparency in Finland*

Finland's membership in the Council of Europe and the European Union make conceptualizations evolved in the semantic fields of these two institutions relevant in Finland as concerns algorithmic transparency and related topics. Despite the fact that the Council of Europe lacks formal powers in respect to its members, it is relevant that it has formulated a European Charter on Artificial Intelligence (Council of Europe 2018a; 2018b; 2019). It is also notable that Finland's foremost legal overseer, the Chancellor of Justice, has made an analogous public statement for human-centric and fair artificial intelligence that should be used with due observance of the rule of law (Chancellor of Justice, 2019).

The European Union and the official Finnish legal and other regulative concepts are intertwined in complex ways. While EU regulations become binding towards the members states at their passing, such as the General Data Protection Regulation (GDPR) did in 2018 (GDPR, 2016; von der Leyen 2019, 9; European Commission, 2019c, 4, 13, 17), EU directives may allow leeway to the member states in their national transposition of the directives. Moreover, intricate interactions prevail between non-binding EU proclamations, policies and aims and the member states.

While it is useful to give references to important EU statements (European Commission 2018a, b, 2019a-d, 2020a, b, European Council 2018), for our study a key point is the European Commission's admission that despite the GDPR and other binding and softer EU norms a unitary EU framework concerning artificial intelligence and related themes including algorithmic transparency has been lacking thus far (European Commission, 2020b, 10). The Commission proposals to introduce a centralized, hierarchical – and hard-to-implement – approach to the mandatory testing and certification of algorithms and data for artificial intelligence applications (European Commission, 2020b, 23; 2019d; 2020a) have not led to legislation and implementation, either. Therefore Finland's government has considerably free hands in defining or revising policies, or in passing or amending legislation to fix issues of algorithmic transparency and related issues.

### *5.2. Algorithmic and other automatic decision-making in policies, programs, reports, and government agency statements*

In its December 2018 report to Parliament on Information Policy and Artificial Intelligence the government of Finland stressed the importance of the proper use of AI systems, the transparency of algorithms and related devices, the accomplishment of workable regulatory mechanisms, and international agreements on algorithmic transparency (MF, 2018). In a round of opinions requested by the Ministry concerning its report, numerous stakeholders agreed on the importance of algorithmic transparency, which some stakeholders connected with the concept of 'open licensing' with the implicit asymmetric

counter-concept of ‘proprietary licensing’ (on counter-concepts, see Koselleck 2004, 155–192). There were also other stakeholders who inserted this transparency into semantic fields of ethics, and still others who put the transparency in connection with the concept of the ‘privacy’ of individual citizens.

There have been projects, many of which have been commissioned or organized by the Finnish government alone or together with partners, with attention to issues of algorithmic transparency. The proposed solutions have ranged from introducing assurance practices for the intelligibility of AI algorithms to people (MF, 2019, p. 23); to establishing the systematic ex ante and ex post impact assessment of government AI (VN TEAS, 2019a); to elaborating frameworks to assess the ethics and acceptability of government AI (VN TEAS, 2019b); and to elaborating rules to communicate to the citizens on AI in government (Espoo, 2020). Further projects have been under way, such as on ethical AI for the governance of society (Etairos, 2020), or, quite explicitly, algorithmic transparency in legal decision-making (UH, 2020).

Independent measures by government agencies can also be mentioned. Finland’s Tax Administration has published its ethical AI guidelines (FNTA, 2020); Finland’s Social Security Institution has made public the sampling code it used in its capacity as the implementing agency of the Finnish national basic income experiment (SSIF, 2016); and the Data Protection Ombudsman has commented on automatic decision-making with or without profiling humans, whether taking place in the commercial, the private non-profit, or the public sector (DAPO, 2020).

### 5.3. Four key cases with issues in algorithmic and other automatic decision-making in Finland’s government, 2016 to 2019

From 2016 to 2019 four cases of transparency issues in algorithmic and other automatic decision making in Finland’s government have become crucial, received precedent value, and have come to comprise an important part of the basis for the 2019 start of the Ministry of Justice pre-preparation of new legislation on transparency. The first issue had to do with Finland’s basic income experiment (CC, 2016). The experiment presupposed a random sample of 2 000 people who would be offered the experimental basic income. The Constitutional Committee of Parliament requested new legislation to be passed on the fundamentals of the sampling and on the details of publishing the program code. The committee returned to the basic income experiment its report on another proposal for new legislation (CC, 2018a). It insisted that whenever legislation is passed on publishing a program code, the code type should be specified given that while the *source code* (in a common computer language) is intelligible to the expert, the *object code* (in a computer-specific language after the compilation of the program written in a source code) may be opaque for all others than its authors.

Another issue arose when the Constitutional Committee was considering a government proposal for legislation on processing airline passenger registry data (CC, 2018b). The committee referred to the Finnish Constitution, Art. 12 para 2 on the public character of documents held by public authorities, and the Constitution Art. 21 para. 2: ‘Provisions concerning the publicness of proceedings, the right to be heard, the right to receive a reasoned decision and the right of appeal, as well as the other guarantees of a fair trial and good governance shall be laid down by an Act’ (Finlex 2020c). The Committee concluded that the specialized standing parliamentary committee considering the proposal should further acknowledge the relationship of the proposed algorithms to current legislation on the public character of the dealings of government authorities (Finlex, 2020b) and also ensure that the need for new legislation be investigated.

In 2018 and 2019, the Constitutional Committee of Parliament passed two opinions on government proposals for legislation on immigration governance (CC, 2018a, 2019). In Skinner’s terms (Skinner, 2002,

145–157) the committee effectively ratcheted up the urgency of new legislation, and in Koselleck's terms argued that the gap between a given 'horizon of expectations' and the respective 'space of experience' had become unacceptably wide (Koselleck, 2004, 255–275). The Constitutional Committee also drew the government's attention to issues of automatic decision-making that were not covered by valid general legislation (CC, 2018a), indicating that the absence of legislation ran into conflict with Art. 2 para. 3 of the Finnish Constitution: 'The exercise of public power shall be based on an Act. In all public activity, the laws shall be strictly observed' (Finlex, 2020c; Interview, 2020). In the other, 2019 case, the committee concluded that on the request of an applicant, the Immigration Service should reveal the algorithm behind the decision on a work permit or its extension (CC, 2019). The Committee underlined that one must always find an individual civil servant who has made the decision and is responsible for it, and that in the absence of such identification, the Immigration Service's plans to automatize its decision-making gave rise to further issues.

On 12 September 2019 the government submitted a proposal to Parliament for new legislation on person-level data in the Immigration Administration (Government, 2019). According to an interview, the processing of the proposal was stopped and articles on automatic decision-making were removed (Interview, 2020). According to another interview, this incident left the Immigration Service into limbo given that its plans and budget had been built assuming expanding automation in its decision-making (Interview, 2020). The Immigration Service tried to argue its way out, albeit in vain, indicating that it would only let decisions made with full automation pass if these decisions were positive for the applicant. Moreover, all decisions requiring human discretion, such as those concerning asylum, would have been made by identifiable civil servants.

The Immigration Administration was also criticized by the Deputy Parliamentary Ombudsman for not having provided for the hearings of the addressees in some cases in which the service had not deemed this to be necessary, contrary to the *ex post* assessment of the Ombudsman (DPO, 2019a, 3–4). The Deputy Ombudsman declined to accept that hearings of persons could be compensated for by such means as publishing decision-making algorithms.

The Deputy Ombudsman has come forward with a strong opinion on automatic decision-making in Tax Administration (DPO, 2019b). Referring to GDPR, the Deputy Ombudsman has contested the Tax Administration opinion that its automatic decision-making would not have legal effects upon taxpayers (GDPR, 2016). After all, in automatic procedures supplements to taxes from 5 or 25 percent may be imposed in certain cases of noncompliance. Moreover, the supervision and collection of taxes are substantially automated, and have consequences for those liable to pay taxes (Interview, 2020).

The Deputy Ombudsman has also concluded while considering individual cases that the Tax Administration had failed to report to a given taxpayer that the taxation decision had been made by an algorithm (DPO, 2019c; 2019d). This highlights combined issues of specifying decision-makers and decision-making grounds. The Deputy Ombudsman held that the procedures of the Tax Administration had not satisfied the relevant articles of the Finnish Constitution, and also joined the 2018 Constitutional Committee opinion calling for the preparation, passing and implementation of new general legislation on all automatic government decision-making (DPO, 2019b). From the viewpoint of theoretical interpretation (Skinner, 2002, 145–157), the Deputy Ombudsman joining the Constitutional Committee further ratcheted up the urgency of new legislation to resolve the issues that had arisen.

Our interview results suggest ideational and conceptual struggles for power shares (Palonen, 2004, 163–174; see also Skinner, 2002, 103–127) in Finland's government on the interpretation of legislation concerning algorithmic and other automatic decision-making in government. There is also a felt need for new legislation on the transparency. For example, the Tax Administration had expected that the civil

servants in charge of automated decision-making processes could be seen as legally responsible for the individual decisions made in these processes. However, the opinion that there is no adequate legal basis for this conclusion voiced by the Deputy Ombudsman gained the upper hand, indicating that the dyad of the Constitutional Committee of Parliament and the function of the Parliamentary Ombudsman acquired a winning power share in this performative struggle (Skinner, 2002, 103–127; Palonen, 2004, 163–173). The Immigration Service, in its turn, had expected in the proposal discussed above that the Service's Director General could be held responsible for all automatic decisions made in the service (Government, 2019, p. 52). However, the Constitutional Committee of Parliament dismissed this proposal (CC, 2019).

According to the interviewee, it would be simple to publish government decision-making rules – such as those that derive from specific articles of legislation – of simpler types of automatic decision-making (Interview, 2020). At least those from among the machine learning program codes that are not protected by the proprietary rights of commercial companies could also be easily published. Moreover, it would not be technically too difficult to publish machine learning parameters those concerning cut-off values that are used to distinguish which cases to examine and which to leave unexamined for such reasons as their fiscal negligibility. However, in the interviews concerns came up that were the codes and the cut-off points published, some addressees of government decision-making, such as automated taxation, might game the system and possible harm system credibility. Yet there were also interviewee opinions according to which independent and critical external scrutiny of the algorithms might be possible by such means as stakeholder panels on the condition of strict non-disclosure agreements.

Another proposal that came up in the interviews comprises establishing a general advisory board on governmental algorithmic governance (Interview, 2020). Another possibility envisaged comprises increasing supervision, oversight and control by means of allocating new responsibilities to the legal overseers, importantly the Chancellor of Justice and the function of the Parliamentary Ombudsman (Interview, 2020). There was also the more free-floating proposal to use intensively the affordances of algorithms with or without artificial intelligence and other automatic decision-making to tackle the very same issues to which these technologies gave rise (Interview, 2020).

## **6. Towards new general legislation on algorithmic and other automatic decision-making in Finland's national government since 2019**

In 2019 Finland's Ministry of Justice started considering the preparation of new general legislation on algorithmic transparency and automatic decision-making in the national government. Importantly from the point of view of the theoretical approach of this study, the preparation very explicitly used concepts that have not found their way into the language of laws actually passed in Finland at least thus far. Using Koselleck's theoretical notions (Koselleck, 2004, 75–92), at the start of the legal preparation, concepts of semantic fields other than the field of law texts actually passed were introduced, but it was not clear if these concepts would soon enter the actual legal texts. Further using notions elaborated by Koselleck, one may propose that the Ministry built on the assumption of a widely enough experienced mismatch between the 'space of experience' and the 'horizon of expectations' (Koselleck, 2004, 255–275). Our study could not advance as far as to find out if the government would share the Ministry's experience of this gap, and if parliament would agree at least in all respects with the proposal for new legislation that the government would possibly present.

A preliminary report prepared by the Ministry of Justice moved in the established semantic field of texts of law actually passed in the Finnish language in Finland with special reference to the established core concept of 'publicity' (*julkisuus*) (MJ, 2020a). However, the Ministry also used the concept of

‘transparency’ (*läpinäkyvyys*) in a few places despite this concept not being present in law texts at least thus far, whereas the concept of ‘openness’ (*avoimuus*) was used only once in a marginal passage of the report. According to the authors of the ministry report, the concept of ‘publicity’ comprises a characteristic of documents by means of reading which citizens can access government information, including computer-coded algorithms, as the Ministry sees it. Envisaging nothing but an innovation in the language of legal preparation, according to the Ministry the concept of ‘transparency’ refers to characteristics that give clarity to the process so that information becomes automatically available to those concerned when their case has been decided and a justification has been given for the decision (MJ, 2020a, 8–10). However, according to an interview, in the very same context of preparing new legislation ‘transparency’ could alternatively be understood in the stronger sense of the true intelligibility of decisions, the grounds and the rules used to make these decisions to the addressees of the decisions (Interview, 2020).

In February 2020 the Ministry of Justice announced the continuation of the pre-preparation with a project focused on the needs for general administrative legislation on automatic decision-making in Finland’s national government (MJ, 2020b). The project was given the task to prepare an assessment memo on the acknowledgement of principles of the legality of public administration, the good principles of public administration, due process, the principle of the publicity of government activities, and civil servant responsibility. By September 2020, about one hundred opinions had reached the Ministry from various stakeholders, most of which were government ministries and government agencies. These opinions became available only during the finalization of this article and therefore could not be examined.

The purpose of the project the Ministry started in February 2020 has been to lay the foundations for a legal preparation project proper. Our interviews also revealed the broader context that the current general act on the publicness of the activities of public authorities of 1999 is seen by some influential experts to be outdated and in need of reform (Finlex, 2020b). However, elaborating this issue falls outside the scope of this article.

## 7. Conclusions and discussion

Our foremost conclusions and our foremost answer to our research question derive from the main results of our study. Our findings suggest that Finland’s version of the Nordic tradition of the public sphere has both enabling and constraining properties for resolving issues concerning the transparency of algorithmic and other automatic decision-making in government, and we have therefore examined both two types of properties in our study.

In respect to the transparency we have examined, Finland’s tradition of the public sphere offers a roadmap that enables movement in certain directions but constrains movement in certain other directions. At the beginning of this article we distinguished four characteristics of this roadmap. (1) It inserts algorithms and other rules of automatic decision-making in the same semantic field (for the notion, see Koselleck, 2004, 75–92) as traditional written or printed governmental documents or contents of voice, film or video tapes (Finlex, 2020b). (2) The roadmap includes the norm of the government having to find an individual civil servant responsible for any decision made in the name of the government. (3) The roadmap requires hearings of the addressees before governmental decisions are made in issues concerning which such a requirement has been written in law. (4) The roadmap calls for the explication of the grounds of governmental decisions for the addressees.

With reference to its last two characteristics – the hearings, and the necessity of explication – it is our assessment that the roadmap works well in principle as concerns the semantic field of democratic

deliberation, within which hearing those concerned and ensuring that the addressees understand the grounds of governmental decisions comprise important principles. However, there are respects in which the roadmap works less well. We find that all four characteristics of the roadmap indicate tensions with the semantic field of neoliberal policy-making that is frequent in Finland, meaning the prioritization of commercial markets, favoring economic globalization, and carrying out deregulation. We also find tensions between the same roadmap characteristics and the semantic field of rationalistic organization and management doctrines, including those of new public management. Last but not least, it is our conclusion that the four roadmap characteristics have tensions with the ample implementation of the semantic field of the affordances of algorithmic and other automatic decision making. We find that, as confirmed in some of our interviews, the expansion of algorithmic and other governmental decision-making has both enabling and constraining characteristics in the everyday practices of government administration. In this respect our results agree with those that Aurelién Buffat has received (Buffat, 2015).

Our results pinpoint the Finnish Constitutional Committee of Parliament and the function of the Finnish Parliamentary Ombudsman as the strongest actors in actions carried out in the performative way in language and by means of language (see Skinner, 2002, 103–127) as concerns algorithmic and other automatic decision-making in government. In comparison to these two actors the other actors pale. We argue that this constellation with two strong actors and several weaker actors together with a rigid legal regulation of the public sphere helps explain why, using Quentin Skinner's terms (Skinner, 2002, 145–157), those who have offered new concepts, such as 'transparency' (*läpinäkyvyys* or *transparenssi*), 'openness' (*avoimuus*), or 'accountability' (*tilivelvollisuus*) have thus far failed to ratchet up the popularity and acceptance of these concepts as far as making them enter texts of legal norms actually passed. Indeed, the semantic field of current laws in Finland only includes such concepts as 'publicness' (*julkisuus*) and 'responsibility' (*vastuu*), but none of the three concepts mentioned first. In Koselleck's terms (Koselleck, 2004, 255–275), the aspirations of the modernizers to close the gap between their 'horizon of expectations' and their actual 'space of experience' by means of making new concepts enter the language of laws passed on the transparency examined have thus far been frustrated.

We further conclude that the semantic field (for the notion, see again Koselleck, 2004, 75–92) organized by means of the 2016 EU GDPR and its national implementation by means of Finland's 2018 Data Protection Act (GDPR, 2016; for the latter, Finnish act, see Finlex, 2020d) has not sufficed to offer concepts enabling the resolution of tensions concerning ideas and concepts and mastering conceptual shifts concerning algorithmic and other automatic decision-making in the Finnish government. More specifically, one finds well-argued research suggesting that what the authors call for a 'right of explanation' of those concerned is lacking in the GDPR contrary to what may have been claimed, and that something substantially less is only provided, called a 'right to be informed' in a scale that is limited (Wachter et al., 2017a).

We can also formulate conclusions concerning more technical issues of algorithmic and other automatic decision making. We argue that these issues become more serious when one moves from simpler ruled-based decision-making to elementary algorithmic decision-making to such common varieties of artificial intelligence with algorithms as machine learning and even beyond (Veale et al., 2018). In this domain, conceptual clarity is a general more than desirable precondition of all improvement. Moreover, our research results bring into the open such proposals as setting up stakeholder panels working under strict non-disclosure agreements to critically consider machine learning program codes and, possibly, also machine learning parameters, and maybe establishing in addition a general national advisory board on governmental algorithmic governance. The proposal of using the affordances of algorithms with or without artificial intelligence and other automatic decision-making to tackle the very same issues to

which these technologies give rise is also worth repeating here. Last but not least, the possibilities of using other available intellectual technologies are worth mentioning. For instance, to our mind with good reason counterfactual reasoning has been seen to offer opportunities to deal with the ‘black box’ of decision-making algorithms and rules (Wachter et al., 2017b).

Our main line of argument indicates seeing Finland’s version of the Nordic tradition of the public sphere with legally guaranteed public access to government documents to have both enabling and constraining effects upon resolving transparency issues of algorithmic and other automatic decision-making in government. We expect important ideational and conceptual shifts to occur in this tradition if and only if tensions grow so strong that frustrating experiences of the constraining effects overwhelm the satisfaction of the expectations because of what the tradition enables. However, having considered the current circumstances in Finland with two strong actors in interpreting legislation concerning the transparency issues – the Constitutional Committee of Parliament and the Parliamentary Ombudsman – and a rigid tradition of a legally guaranteed public sphere, we shy away from expecting imminent rapid changes. However, despite the legal rigidity we find little reason to see Finland as a particularly adverse case. It is globally common to use the first tools that come to hand to resolve issues with new technologies, including using existing rather than new or considerably amended legislation, or using pre-existing rather than brand new concepts in new or amended articles of law (see, for instance, Stokes & Bowman, 2012).

We find that to answer questions on the possible generalizability of our results, we should have available results from comparative studies between Sweden, Denmark, Norway and Finland. In this way one could gain capacity to take an informed look at the transparency of algorithmic and other automatic decision-making in the government of each of these countries with Nordic traditions of the public sphere and its publicness. However, to do so requires the meticulous acknowledgment of each specific national context, which one cannot suppose to be alike for such reasons as the fully separate national histories of the four countries ever since the 1905 dissolution of the Swedish-Norwegian union.

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