

Striking the Balance: Preserving Individuality in the Era of Highly Structured Data Collection in Automated Social Security Case Administration

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Abstract

This article explores the growing role of automation in the administration of social security benefits, focusing on the reliance of automated processes not only on accurate data but also on well-structured data for computational utilisation. It examines the potential impact on claimants' ability to present their claims and identities, raising concerns about excessive standardisation that could compromise principles of good administration, including the right to be heard, a fair procedure, and the duty of care. Using Swedish examples, the article underscores the importance of balancing automated eligibility assessments with the need to allow claimants to present their cases in free text and to consider low-structured data within automated procedures. It argues for a continuous assessment of the consequences for claimants in developing digital services, emphasising the administration's responsibility to align with underlying principles and intentions of applicable regulations. Failure to do so may lead to a dehumanised case administration lacking room for meaningful questioning or clarification.

Keywords: automated decision-making, social security, case administration, administrative law

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1. Introduction

For decades, public administrations across the globe have been using fully or partially automated processes to assist their tasks. However, the automation of public services has accelerated and come to take on more advanced tasks. As the enabling technologies have become more sophisticated and cheaper to maintain, efforts to automate public services have thus intensified both quantitatively and qualitatively. Social security is one example of a sector of administrative law and public functions that in many countries have been at the forefront of discussions and initiatives to make the administration and issuance of public benefits more accurate and efficient through automation.¹ The information-intense exercise that the administration of social security benefits is characterised by is one key reason to the extensive adoption and use of information technologies.²

The main allure of automation likely lies in the sheer size of the administration and the associated opportunity for major cost-savings. Another likely appeal is that many social security benefits are structured around specific eligibility criteria that are to be assessed through successive 'checks' of whether a limited set of circumstances of the claimant's real-world situation substantiates eligibility. This programmatic element of benefits provisions might thus make them suitable or attractive for replacing the manual human assessments with automated checks.³ The potential to secure more uniform application of welfare provisions as well as being able to deliver more speedy and efficient public services and decision-making are also likely reasons.

What in the context of automated decision-making is often referred to as 'data collection', 'data processing' or 'checks' nevertheless in the broader context of administrative law is a matter of case management. However trivial this remark may appear, it is an important one as the workings of an automated decision-making or decision support system, from a legal perspective, are not mere or mundane matters of information management. When automated systems take on case management, they also take on tasks that form an integral component of the public exercise of power – as well as the performative act of administering justice. Though data collection, processing and the checks that an automated decision-making or recommender system makes, the system thus engages in the practices of investigation, examination and evaluation of evidence – which are accountable to principles of good administration.

¹ Terry Carney, 'Robo-Debt Illegality: The Seven Veils of Failed Guarantees of the Rule of Law?' (2019) 44 *Alternative Law Journal* 4; Amnesty International, 'Dutch Childcare Benefit Scandal an Urgent Wake-up Call to Ban Racist Algorithms' (Amnesty International, 25 October 2021) <<https://www.amnesty.org/en/latest/news/2021/10/xenophobic-machines-dutch-child-benefit-scandal/>> accessed 20 June 2023.

² Paul Henman, Michael Adler, 'Information Technology and the Governance of Social Security' (2003) 23 *Critical Social Policy* 139, 149.

³ Lance B Eliot, 'How AI Intertwines with the Trend toward Law as Code' (SSRN, 24 November 2021) <<https://papers.ssrn.com/abstract=3971091>> accessed 20 June 2023.

This article will develop the argument that fair automated administration and decision-making in social security benefits administration not only depend on the factual accuracy but also, to a significant extent, rely on the 'structural accuracy' of the data collected and utilised in automated processes. Furthermore, it will situate 'structural accuracy' as a herein custom terminology which may serve an illustrative function in legal approaches to understanding data utilisation in automated administration. It will also argue that the active measures taken to improve the structural accuracy aspects of data obtained directly from claimants can potentially impact how claimants may present their claims, life circumstances and identities. These measures may lead to a standardisation and datafication of the claimant's social sphere, which has implications for ensuring that principles of good administration, such as the right to be heard and to a fair procedure, are not challenged. The discussion and analysis will be structured against the backdrop of some Swedish experiences and strategies to structure the data collection from claimants in a way that facilitates actionability in automated eligibility assessments. Sweden is one example where social security has been one focal point for national public automation efforts. The experiences and legal, as well as organisational pathways chosen within Swedish social security, provide interesting insights. They reveal how the automation of benefits administration and decision-making has necessitated a certain refocus on questions of data accuracy, with relevance extending beyond national and social security contexts.

2. Automation in Swedish Social Security Administration

The Swedish social security system is a comprehensive one comprising numerous types of benefits, such as sickness and parental benefits, activity grants or child and housing allowances.⁴ The sheer structure and scale of the administration required to distribute these benefits to their eligible recipients therefore makes them an attractive target for efficiency enhancements. As economic benefits often rely on monthly payments, there is also often a recurring administration related to each case and recipient – which only further amplifies this administrative burden. These are part of the reasons why Swedish social security administration has been subject to fairly extensive automation efforts especially in recent decades.⁵

2.1. History and Legal Frameworks for Automated Decision-Making

Sweden has established ambitious objectives for incorporating digital technologies into public administration, aiming to achieve a world-leading position in leveraging the opportunities provided by digitisation.⁶ That digitalisation efforts have been a priority is also clear from Sweden's consistent attainment of a high ranking on the EU

⁴ Swedish Social Insurance Code (2010:110), Chapters 5–7.

⁵ SSA, Budget Report 2021–2023 no 004816-2020 (2020) 7.

⁶ Swedish Government Bill prop. 2011/12:1, no 22.

Commission's Digital Economy and Society Index (DESI), which is an index for digital performance amongst the Member States.⁷ However, while the aspirations for digitalised public administrations have gained momentum, particularly since the rapid technological development, automated processes to support or make decisions is nothing conceptually new within Swedish public administration. Automated processes have been used since at least the 1960s, with the first fully automated processes being deployed in the 1970s. The Swedish government has shown a high interest in utilising technologies to help and assist various types of public tasks ever since, the social security benefits administration being an early adopter of automation. As an example, the Swedish general child allowance benefit has been subject to full automation since 1979. This benefit is paid in fixed amounts to the custodians of all children until they reach 16 years of age and is thus conditioned on rather straightforward and 'objectively verifiable' criteria, which facilitated its early automation.⁸

Although automated decision-making has been used for a long time in Sweden, there have been debates about whether explicit statutory mandates are necessary. A 2017 amendment of the Swedish Administrative Procedures Act has, however, made it clear that the Swedish stance on the basic legality of public automated decision-making is that no specific legal authority in the form of a power-conferring rule is needed. The new Section 28 of the Act now, and without further specification, states that decisions can be made automatically.⁹ The concept is that regulations, primarily technology-neutral ones, should establish the boundaries within which decisions can be automated. Consequently, beyond the fundamental requirement that decisions must be lawful, assessments regarding the lawful deployment of automated decision-making procedures in public administration, such as social security administrations, revolve around substantive criteria – evaluating the system's ability to reliably apply complex or vague legal criteria or evidence – and procedural considerations, including whether the system can meet requirements such as the duty to state reasons. In essence, however, there are no explicit formal restrictions on automating decision-making for any type of social security benefit.¹⁰ While it should be noted that Article

⁷ European Commission, 'The Digital Economy and Society Index (DESI) | Shaping Europe's Digital Future' (European Commission, 2023) <<https://digital-strategy.ec.europa.eu/en/policies/desi>> accessed 20 November 2023.

⁸ The Swedish Social Insurance Inspectorate, 'Individualised or Standardised Social Insurance. A discussion for a more legally secure procedure' (In Swedish), 2015:3 (2015) 16.

⁹ Administrative Procedures Act (2017:900), Section 28. Within the municipal sector, a mandate for automated decision-making is found in the Swedish Local Government Act (2017:725), Chapter 6, Sections 37–38. A non-official translation of the Administrative Procedures Act can be found at the Government Offices of Sweden <<https://www.government.se/government-policy/democracy-and-human-rights/the-administrative-procedure-act-2017900/>> accessed 21 November 2023.

¹⁰ While certain uncertainties exist regarding the application and interpretation of the Swedish constitutional framework concerning public automated decision-making practices, no arguments have been presented to date advocating for a constitutional mandate necessitating a specific legal basis either at the legislative level or by the highest courts. Notably, the

22(1) GDPR prohibits solely automated decision-making where personal data are processed, this prohibition holds exceptions. In the context of highly regulated decision-making in social security, the pertinent exception is outlined in Article 22(2)(b) of the GDPR. This exception permits solely automated decision-making when authorised by EU or Member State law, provided that appropriate safeguards are in place. Consequently, the opportunities for exemptions from this prohibition can be extensively leveraged in the realm of social security benefits administration.

The Swedish Social Insurance Agency (SSA) is the main public authority tasked with administering social security benefits.¹¹ Especially in the last decade, the agency has intensified its automation efforts and now handles some of its case management and decision-making through nearly fully automated procedures. One example is the national dental care subsidy, for which the investigation and final decision was made fully automated in approximately 99% of cases.¹² Another example of high automation is the administration of the general child allowance.¹³ As of yet, however, there is no type of benefit for which the SSA decides a full 100% of the cases entirely automatically, as all decision-making systems are equipped with built-in functions to stop or interrupt the automated process at certain impulses such as missing data or low reliability scores. For some benefits the agency has opted for partially automated procedures because the eligibility criteria have been considered too complicated or requiring individualised discretionary assessments, making them unsuitable for converting into fully automated decision-making procedures. One example is sickness benefits where, in particular, the criteria that involved the assessment of the claimant's working capacity was considered to require a detailed individual assessment which could not be automated. The agency has therefore chosen to automate this case management partially, up to the point where technical or legal challenges have set in.¹⁴

Across the spectrum of the different benefits that the SSA administers, the prospects as well as obstacles for automation have thus varied. Within the agency, discussions

preparatory works of the 2017 amendment to the Administrative Procedures Act did not raise any constitutional considerations, Swedish Government Bill prop. 2016/17:180 p. 178 f. The matter of automated decision-making was also not addressed in the (as late as) 2010 comprehensive reform of the Swedish Instrument of Government (1974:152), Swedish Government Bill prop. 2009/10:80.

¹¹ One other main national public authority in social security administration is the Swedish Pensions Agency, which administers pensions. If taking the starting point in a broader concept of social security than the national Swedish one, which does not include unemployment and health care, for example, the list of administering agencies could be extended. In this article, the focus of the exemplifying discussions will in any case be situated within the SSA, which is the largest agency for social security administration in Sweden.

¹² SSA, 'Faulty Payments of Dental Care Subsidies' PM 2023:5 (In Swedish), FK 2022/005858 (2023) 7.

¹³ *ibid.*

¹⁴ SSA, 'Sickness Benefit Cases With Simplified Medical Certificates - Legal Quality Follow-Up' 2016:3 (In Swedish), (2016) 5.

and evaluations are also ongoing regarding what types of benefits as well as what specific tasks associated with their administration are suitable for further automation efforts. Within the national context, the SSA also has a relatively strong capacity for initiating as well as maintaining such development, as it houses one of the largest IT departments in the Swedish public sector.

2.2 Rule-Based Systems are the Most Commonplace

Just as the types of social security benefits that have been subject to some degree of automation efforts by the SSA are conditioned on specific but different eligibility criteria (which might vary in how complex they are), the system logics and capacity of the technologies that the SSA have deployed to perform these automated procedures might also vary. The systems that the SSA uses today to perform automated procedures fully or partially thus rely on different techniques and applications. No in-depth technical overview is expedient here, but there is reason to dwell a little on the general differences between so-called rule-based systems and machine learning systems. These categories of systems rely on fundamentally different logics in how to reach their decisions or recommendations. This means that the choice of technology used to make or assist decision-making procedures has implications for how the evaluation of the data which claimants have submitted as evidence in a social security claim is conducted and performed when a system makes its conclusions on eligibility.

First off, so-called rule-based systems may indeed display different properties and be based on different technologies (including AI technologies). Their summary features are, however, that they apply human-made rules to store, sort and manipulate data as well as make decisions based on that structured data. Rule-based systems thus have a static model design that require human input before any changes to the operating algorithms could be made. For rule-based systems to be able to mimic the process of applying the law, that law needs to be converted or 'translated' into a runnable code format by human intermediaries. In other words, an expert system designer needs to manually establish and modify the rules to account for adjustments in the data or environment. These rules often comprise of logical judgements, such as conditional 'if-then' statements.¹⁵ Focusing on the evidentiary evaluation that the system needs to do to determine eligibility, this means that a rule-based system due to its static properties is configured to collect and evaluate data as instructed. Rule-based systems are thus likely to collect and process a delimited and select data from a select set of sources. This also means that the evaluation of evidence needed to subsume the facts (that this data represents) under the criteria for eligibility, is likely to be performed through static systems that are instructed to attribute certain weight to particular data, or to react to inconsistencies or incomplete data. Rule-based

¹⁵ Antoni Ligeza, 'Basic Structure of Rule-Based Systems in J. P. Müller, M. F. Strube (eds) *Logical Foundations for Rule-Based Systems* (Springer, 2006) 91; Quing Liu, Badiul Islam, Guido Governatori, 'Towards an Efficient Rule-Based Framework for Legal Reasoning' (2021) 224 *Knowledge-Based Systems* 107082.

systems therefore generally only allow for any substantive evidentiary evaluation to take place at the time of the data collection. The value or other type of quality metric used to indicate the accuracy of the data is therefore also likely to have been set on beforehand and not be based on an individual assessment of the facts –and thus *in abstracto*.

Secondly, when machine learning systems are deployed, the evidentiary evaluation method is statistical as the system will evaluate the input data based on patterns and trends that have been identified within the given data set. Machine learning systems can thus adapt and refine their understanding of what patterns the data displays without requiring human intervention, ideally improving its accuracy over time.¹⁶ The capacity for machine learning systems to produce decisions or recommendations that are lawfully compliant thus relies on their ability to process and analyse often large amounts of data. However, for the exact same reasons, the accuracy of a system's outputs is susceptible to risks of biased or inaccurate datasets which could carry over into the AI's evaluations. Machine learning systems thus operate through a logic that contrasts with how legal reasoning, which is premised around the subsummation of facts under a predefined set of criteria, is traditionally performed.

It should be noted that insights derived from statistical inferences generated by machine learning systems may be utilised in design choices regarding rule-based systems, and that both machine learning and rule-based applications can be deployed within a single system. However, against the background of the above-described general differences in their operational logics, another noteworthy aspect of their different properties is that they come with varying risks of feeding an automated system with inaccurate data. For machine learning AI systems, it is of course important that the data used to train the system's operational algorithms are accurate and representative of the task that it eventually will perform. Since the approach is statistical in nature, however, not every erroneous data will necessarily have the same impact on the system's predictions and decisions. Inaccurate data as input into a rule-based system may, nevertheless, have an even more direct impact on the correctness of the decision outcome in a particular case. As these systems are static and rely on rules being translated into conditionals in the form of code to be tested against the data fed to the system, they are deterministic as they produce the same output for the same input.¹⁷

Returning to the Swedish social security setting, the different automated procedures on benefits administration currently deployed by the SSA could primarily be categorised as building on rule-based logics. Artificial intelligence applications, in

¹⁶ Dean Alderucci, 'The Automation of Legal Reasoning: Customized AI Techniques for the Patent Field' (2020) 58 *Duquesne Law Review* 50; Izabela Małgorzata Wróbel, 'Artificial intelligence systems and the right to good administration' (2022) 49 *Review of European and Comparative Law* 203, 209; François Chollet, *Deep Learning with Python* (Manning Publications, 2017) 4 f.

¹⁷ Han Liu, Alexander Gegov and Mihaela Cocea, 'Rule-Based Systems: A Granular Computing Perspective' (2016) 1 *Granular Computing* 259.

some cases based on machine learning, are increasingly being used and developed, but mainly for supplementing functions, for example in fraud detection or to provide guidance or recommendations to human administrators in executing manual tasks that are information intensive, rather than used to make fully automated decisions.¹⁸ This is also the predominant practice in Swedish public administration overall. According to a 2020 report by the Swedish National Audit Office,¹⁹ rule-based systems are dominant among Swedish public agencies in general, especially if authorised to make fully automated decisions. As stated in the report and as today known to the author, no Swedish public agency is using machine learning AI technology to make formal and fully automated decisions involving the exercise of power against citizens or businesses. Although not as hyped and debated as machine learning AI technologies, so-called rule-based systems are thus the main type of system logics used for automated decision-making at least in Swedish public administration in general, as well as in the social insurance benefits administration more specifically. As rule-based systems operate on predetermined rules implemented as code, and as they yield consistent output for identical input, even minor inaccuracies or inconsistencies can, in turn, yield inaccurate recommendations or decisions. While systems may possess different capacities to handle diverse levels of heterogeneity in the input data, it is typically of crucial importance for reliable and correct outputs in the form of decisions or recommendations that the data which the system is fed with are 'accurate'.

3. Data Accuracy as a Challenge and Prerequisite for Automated Administration of Social Security Benefits

Accurate data, here specifically in the meaning of factual and reliable information that supports the claimant's eligibility and need for benefits, is generally imperative for accurate decision-making on social security benefits (and thus irrespective of whether a case is handled and decided fully manually or fully automatically, or through a combination of manual and automated administration). In the previous section, it was argued that the accuracy of specific data, however, may have a more direct impact on the output of automated processes. The reason for this is that the data in automated procedures directly prompts actions by the system without further contextual inputs by humans. As the system-building algorithms used to perform legal decision-making are to correspond to the legislation they enforce, the automated procedures thus fold the interpretation and application of law into the one and same

¹⁸ SSA, 'Project SKOSA 2 - Summary of knowledge and insights for external audiences 21st December 2021' (In Swedish); The Delegation for Correct Payments from the Welfare Systems, 'Report no. 5, Digitalisation and AI for Correct Payments from the Welfare System' (In Swedish) (2019) 47.

¹⁹ Swedish National Audit Office, 'Automated Decision-making in Government Administration – effective, but control and monitoring are inadequate' RIR 2020:22 (In Swedish) (2020) 55.

(data-driven) operation.²⁰ The direct turnover of the data in automated processes therefore creates a more direct data-driven exercise of power. As will be argued below, the specific implications of data accuracy in data-driven exercises of power relieves more clearly against the background of a distinction between factual and structural data accuracy. While the factual accuracy of data is essential for assessing whether particular data possess the qualities required to substantiate a particular claim, the structural accuracy of that data are normally not as important in the manual evidentiary evaluations of eligibility. This is because the humans manually performing this evaluation typically possesses the cognitive abilities to interpret and analyse the data within its context. Human cognitive capabilities go beyond mere data points and is enriched by the amalgamation of knowledge, experience and intuition.²¹ Humans are therefore generally more apt to compensate for ambiguities and nuances, such as when similar facts or circumstances are expressed in different ways in natural language. This capacity to navigate the subtleties of language and context allows human evaluators to discern the underlying meaning and intent behind the data, contributing to a more comprehensive and nuanced assessment. Within automated eligibility procedures, however, the importance of the data's structural accuracy is often necessary for the data to become machine-readable and utilisable in automated procedures. The next section will therefore dwell on the implications of both factual and structural data accuracy in automated decision-making procedures.

3.1 Factual and Structural Accuracy as Tandem Cornerstones for Reliable Automation

From a functional starting point, data could be classified as accurate if they are free from errors and omission, so that a high level of confidence can be placed in them. In turn, this will affect the wider credibility of that data as well as ultimately to what extent it might subsumed under legal criteria.²² In the social security context the factual accuracy of data is thus crucial for making informed decisions and ensuring that benefits are only granted to those who substantively meet the criteria (and thus are the intended targets of that benefit). While not a conceptually new problem in public case management, the conversion of real-world occurrences into compact data and information is, however, a known potential source of inaccuracies – not the least because the real-world occurrences themselves may exhibit complexities or

²⁰ Mireille Hildebrandt, 'Code Driven Law. Scaling the Past and Freezing the Future' (19 January 2020) 70.

²¹ Chollet (n 16) 325 f.; George Siemens and others, 'Human and Artificial Cognition' (2022) 3 *Computers and Education: Artificial Intelligence* 100107; Therese Enarsson, Lena Enqvist and Markus Naarttijärvi, 'Approaching the Human in the Loop – Legal Perspectives on Hybrid Human/Algorithmic Decision-Making in Three Contexts' (2022) 31 *Information & Communications Technology Law* 123, 127.

²² United Nations Children's Fund (UNICEF), 'Technical Note: Better integration of social protection and humanitarian information systems for shock response' (UNIFEC, 2021) <<https://www.unicef.org/media/100016/file/Technical%20note%20-%20Information%20Systems.pdf>> accessed 20 June 2023.

insecurities which do not lend themselves to being defined through clear-cut boundaries. Questions of whether data are factually inaccurate or not are often therefore deeper-rooted and may require disparate fields of expertise. This is often relevant in the context of social security benefits; Glaze et al, for example, argue that this problem can be compounded for claims involving medical evidence, since this data and evidence is also subject to the interpretation of medical service providers.²³ This highlights that the securing of factually accurate data used to substantiate eligibility in social security claims not only is crucial, but also a highly qualitative concept and endeavour ultimately extending to the philosophical ontologies of ‘truth’.

There is ample research into different aspects of data accuracy, often referred to as ‘data quality’, within computer science and other research fields concerned with the machine-readability of data.²⁴ Lawyers and legal scientists, however, have primarily focused on how regulations may facilitate the collection and utilisation of factually accurate data via formal responsibility structures – thus viewing as a primary concern the distribution of responsibilities for ensuring that specific and regulatory targeted data are factually accurate (including up to date).²⁵ A broad-ranging example of a regulation that allocates responsibility for keeping data accurate is the EU General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679).²⁶ The therein regulated obligations, emanating from Article 5(1)(d) GDPR, include taking reasonable steps and having adequate procedures in place to verify the data collected, to rectify errors or to ensure that updates are made when necessary.²⁷ Ensuring accuracy is a fundamental aspect of justifying automated decision-making. Recital 71 GDPR also specifically addresses data accuracy in the context of automated decision-making, stating that data controllers are required to take measures to correct any inaccuracies in personal data and minimise the risk of errors.²⁸ The importance of accuracy, both

²³ Kurt Glaze, Daniel E Ho, Gerald Ray, Christine Tsang, ‘Artificial Intelligence for Adjudication: The Social Security Administration and AI Governance’ in Justin B Bullock and others (eds) *The Oxford Handbook on AI Governance* (Oxford University Press, 2022).

²⁴ Diana Dimitrova, ‘The Rise of the Personal Data Quality Principle: Is It Legal and Does It Have an Impact on the Right to Rectification?’ (2021) 12 *European Journal of Law and Technology* 8.

²⁵ Here the term ‘factually accurate data’ also includes inferred data that have been deduced from existing data or observations.

²⁶ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC.

²⁷ GDPR, Articles 5(1)(d) and 16, Recitals 46, 47, 48, and 77; Gianclaudio Malgieri, ‘“Just” Algorithms: Justification (Beyond Explanation) of Automated Decisions Under the General Data Protection Regulation’ (2021) 1 *Law and Business* 16.

²⁸ The recital is complementary to Article 22 GDPR, which prohibits solely automated decision-making unless certain exemptions, such as a legal basis for the decision-making in European or Member State law, applies. Article 22 GDPR does not explicitly address questions of data accuracy within solely automated contexts, but introduces certain restrictions to the utilisation of special categories of personal data in solely automated procedures, as well establishes obligations on the ensuring of present safeguards for securing the perseverance of the data subject’s rights.

in the input data and the final decision outcome, has consistently been regarded as a key factor in supporting the use of specific algorithms.²⁹ The Article 29 Working Party (now replaced by the European Data Protection Board) has also highlighted inaccuracy as a significant concern in automated decision-making, as errors within the data or the automated process itself can lead to incorrect classifications and assessments based on imprecise projections, thereby negatively impacting individuals involved.³⁰

As indicated, however, not only the factual accuracy of the data that is being fed into automated procedures, such as within benefits eligibility assessments, are important. To allow for reliable automation and ability to prompt sought reactions by the automated systems, the data must also exhibit a sufficient level of 'structural accuracy'. Structural data accuracy is not a standard terminology within either data science or the legal domain. However, the term will be used in this article as a compilation for the data formatting, modelling and standardisation involved in the machine-readability preparation of data. The emphasis on structure here is emblematic for the situating of accuracy in the legal decision-making context because it underlines the managerial (and thus procedural) aspect of achieving the necessary structure of collected data to allow for its computational utilisation. The reference to structural accuracy thus also underlines that the context in which data are collected plays an important role in achieving 'structure'. The core challenge, which necessitates this emphasis on structure, is that factual accuracy of real-world occurrences can be reflected and conveyed through data in diverse ways. As data does not exist independently but are generated as a result of human activity or by technical means (e.g., the aid of sensors or other measuring instruments, etc.), the process through which data emerges might not always be intentional in the sense that it was organised and formatted to fit specific and predetermined criteria (such as social security benefits criteria). This is partly why data may display heterogeneity, through multifaceted representations describing diverse and sometimes overlapping aspects or perspectives of the same real-world occurrence. If data are collected in an un- (or low-) structured way, heterogeneity is often a result. For example, in the social security context that this article focuses on, there may be many different ways to express the individual's life circumstances related to sickness, work capacity, etc. Therefore there are also many ways to represent these circumstances through data points or datasets. As another example, the entry of particular data or sets of data into a registry or case file might have been preceded by a decision taken by a human actor (such as a public official, an employer or a medical practitioner) on what factual circumstances are at hand as well as on how to classify this information.³¹ The references made here to the 'structural accuracy' of data therefore intertwine with

²⁹ Malgieri (n 27).

³⁰ WP29, Guidelines on Automated Individual Decision-Making and Profiling for the Purposes of Regulation 2016/679, 27.

³¹ Anette CM Petersen, Lars Rune Cristensen, Richard Harper and Thomas Hildebrandt, "We Would Never Write That Down": Classifications of Unemployed and Data Challenges for AI' (2021) 5 *Proceedings of the ACM on Human-Computer Interaction* 1.

factual data accuracy. The latter relates to the overall reliability of real-world occurrences that the data strives to represent as truthfully as possible. The former, set against the backdrop of many possible and equally substantial 'true' representations, highlights the need for structuring towards a more limited set of representations to facilitate fair and correct automated processing.

While regulations have often been primarily concerned with the promotion of factual accuracy, it is at the same time clear that regulatory regimes around the structuring of data to promote the digital transformation of public as well as private spheres are increasingly common at national levels as well as within the EU. For these types of regulations, the primary concern is often the interoperability of data, so that it can be exchanged across borders, sectors and actors without information loss. Examples at the European level is the EU 'Electronic Exchange of Social Security Information', EESSI, which is a platform for information exchange established around requirements for all cross-border communication between Member State national social security institutions on social security files to take place by the exchange of structured electronic documents and via commonly agreed procedures to process them.³² Another example is the EU Single Digital Gateway Regulation (Regulation (EU) 2018/1724), which aims to facilitate online access to information for citizens and businesses using certain key administrative procedures in cross-border situations, as well as establish a technical system for the automated exchange of evidence between Member States. The GDPR is also obviously one influential regulatory instrument at EU level which, not the least by requiring that data can only be collected for specified reasons, Article 5(1)(b) GDPR, combined with Article 5(1)(d) GDPR, creates obligations around structured data management. The GDPR does not, however, in itself set any specific standards for data collection at the detailed level, such as regarding technical formats or standards for how data should be represented or made interoperable.

There is reason to think that the regulatory regimes around the interoperability of data in primarily public (but also private) information exchange will extend their scopes, and that they will stretch further not only into technical interoperability requirements, but also further into the organisational and semantic aspects of how data are collected and represented (organisational as well as semantic interoperability requirements). This is indicated through the European Commission's proposal of a new Artificial Intelligence Act, where the therein proposed Article 10 includes provisions on data and data governance around the collection and data preparation for training, validation and testing data.³³ Other examples are the

³² Cf. European Commission, 'Electronic Exchange of Social Security Information (EESSI)' (European Commission 2023) <<https://ec.europa.eu/social/main.jsp?catId=1544&langId=en>> accessed 21 November 2023. The legal basis for the EESSI system is laid down in Article 78 of Regulation (EC) No 883/2004 of the European Parliament and of the Council of 29 April 2004 on the coordination of social security systems and Article 95 of the implementing Regulation (EC) No 987/2009.

³³ Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain

Commission's proposals of an Interoperable Europe Act and a European Health Data Space Regulation, which are both likely to delve deeper into shaping and ensuring the structural accuracy of data that are exchanged.³⁴ In Sweden, there is as yet no specific national interoperability regulations, but there are ongoing and government-initiated larger-scale development initiatives for interoperability solutions for some types of data identified as generally important for public information exchange (so-called national basic data). This initiative aims to align national technical as well as organisational and semantic standards with the European regulations to avoid multiple benchmarks.³⁵

The above-mentioned frameworks and likely developments contribute to shaping the regulatory regimes around the securing of data accuracy in both the factual and structural sense. They may therefore, by extension, also in different ways aid reliable and correct automated decision-making in many sectors (including the social security sector) – as well as allow for increased information exchange between public actors without risk of information loss. However, none of these frameworks include detailed guidelines or provisions specifically addressing the procedures and safeguards to be followed by social security administrations when collecting information from claimants. Furthermore, when shifting the focus specifically towards automated procedures and the process of collecting data from claimants, it also becomes important to adopt a complementary perspective to that of accuracy as a fixed and attainable concept to aid the efficiency of the administration. From the perspective of the claimants, accuracy cannot be reduced to binary determinations. It must also be regarded as something relative, influenced by the nuances and contextual factors specific to each individual.

3.2. Standardisation as the 'Theoretical Cousin' of Datafication

The previous section argued that automated procedures amplify the significance of securing the structural accuracy of input data. This section will now explore how such structuration practises premises on the standardisation of how real-world occurrences are represented through data. In turn, and particularly within the context of social security, this argument also holds that standardisation processes will often intertwine with the wider phenomenon of datafication in the social sphere as associated with the digital transformations of the welfare state.

Union Legislative Acts (COM/2021/206 final), AIA. See also Recital 44 AIA which stresses the importance of high data quality in the performance of many AI systems.

³⁴ Proposal for a Regulation of the European Parliament and of the Council laying down measures for a high level of public sector interoperability across the Union (Interoperable Europe Act) (COM/2022/720 final), see for example Articles 5 and 6; Proposal for a Regulation of the European Parliament and of the Council on the European Health Data Space (COM/2022/197 final), see for example Articles 6 and 56, and Recital 18.

³⁵ Swedish Agency for Digital Government, 'Mandate to continue to establish an administration-wide digital infrastructure for information exchange', Document number: (I2022/00102) (2023).

When the accuracy of data is additionally assessed and measured against the feasibility of translating it into automated processes, the necessary structuring of that data is often premised on a certain level of standardisation of how the data are presented – so that the automated system will be able to recognise the data as actionable. As standardisation is facilitated through uniformity, it therefore also plays a central role in the process of datafication which has facilitated digital transformations of the welfare state.³⁶ The concepts of standardisation and datafication are related to one another, where standardisation refers to the developing and implementation of consistent rules or protocols while datafication relates to the process of collecting, analysing and utilising large quantities of data to gain insights and make decisions. Here, datafication is premised especially on the transformation of human life so that its elements can be a continual source of data, and thus involves determinations of how to (as well as not to) represent real-world occurrences through data points.³⁷ As put by Mussgnug, datafication and the potential ensuing standardisation is neither strictly morally good nor bad. Standardisation has advantages for information exchange, costs, and knowledge production in general.³⁸ Without a certain level of standardisation, data would be difficult to compare, analyse or interpret, thus making it harder to identify trends or patterns to make informed decisions based on them. For the same reasons, however, a certain degree of standardisation is often a precondition for datafication. Standardisation could thus be seen as the ‘theoretical cousin’ of datafication because they both aim to create order and consistency from disparate and complex information. To enable the efficient collection and utilisation of data, standardised systems and protocols in place to ensure that the data are accurate, complete and comparable across different sources is often necessary. In turn, this often requires the standardisation of data formats, data definitions, and data collection procedures and methods, to try to make sure that the data are consistent and reliable. As a consequence, the data exhibits less variation. Andreassen, Kaun and Kikunen argues that datafication approaches within the welfare sector rarely explicitly enhance data diversity in the sense that the approaches nuance difference, and that they therefore rather reinforce the standardisation and flattening of human identities.³⁹

The reasoning above highlights that a high level of structuring of the data utilised in automated procedures, as enabled through standardisation and datafication, may risk leading to an inadequate representation of the individual’s circumstances. In the social security context, and given that the legitimacy of social security systems ultimately relies on the benefits reaching their intended target groups in the substantive sense, there is therefore reason to exercise caution against the

³⁶ Lina Dencik, Anne Kaun, ‘Datafication and the Welfare State’ (2020) 1 *Global Perspectives*.

³⁷ Ulises A Mejias, Nick Couldry, ‘Datafication’ (2019) 8 *Internet Policy Review*.

³⁸ Alexander Mussgnug, ‘Datafication: Arbitrator of a Standardized Reality?’ (SSRN 2020)

<<https://papers.ssrn.com/abstract=3650790>> accessed 20 June 2023.

³⁹ Rikke Andreassen, Anne Kaun, Kaarina Nikunen, ‘Fostering the Data Welfare State: A Nordic Perspective on Datafication’ (2021) 42 *Nordicom Review* 207, 219.

semblance of a special reality that computerised information can give.⁴⁰ This is especially important as the high reliance on standardised data to facilitate automated processing, as noted above, reduces the likelihood of any contextual assessment of the individual's circumstances going beyond the system's functional boundaries. This illustrates why an excessive degree of standardisation can lead to a level of data abstraction that, in the worst-case scenario, creates a gap between how the individual's circumstances are portrayed and actioned within the system, and the design of the benefit criteria. Overemphasising data standardisation, especially when utilised in automated procedures, can thus risk introducing an additional layer of rigidity overshadowing the nuanced aspects of individual circumstances that may be vital for lawful and fair decision-making.

The article's line of reasoning so far highlights that the amplified need for securing structural data accuracy within automated procedures by extension necessitates a more cognisant and structured data collection by social security administrations – to balance the wishes for efficient and reliable automated processes with the need for recognising the relevance of context also in the legal sense. This reasoning will, in the following section, be further detailed and developed against the backdrop of some seemingly mundane but illustrative examples of strategies that the Swedish SSA has used to ensure that the data collected directly from benefit claimants during the investigation of a benefit claim are accurate and conducive to automated utilisation.

4. Shaping Data and Choice through Standardisation

In Sweden, 'inaccurate' data is the single greatest reason for faulty decisions on social security benefits payments. According to a 2019 estimate by the specially appointed Delegation for Correct Payments from the Welfare Systems, around three out of four wrongfully dispensed Swedish crowns had been issued because of faulty or not updated information.⁴¹ While this estimate did not relate to automated procedures specifically, the delegation pointed to deficiencies in data accuracy as particularly problematic within the context of automated decision-making. It also argued that this warrants that high priority must be given to the securing of accurate data and information as means to mitigate wrongful payments from the welfare system.⁴² On a similar note, the SSA has also stressed that the conditions for uniform and lawful correct rules application in contexts where automated procedures are deployed are largely affected by the accuracy of the information submitted to the agency, as well as by how the system is structured to deal with uncertainties related to that data.⁴³

⁴⁰ Explanatory report to the Council of Europe Committee of Ministers Resolution (73)22 on the Protection of the Privacy of Individuals vis 'a vis Electronic Data Banks in the Private Sector [1973], para 18; Jiahong Chen, 'The Dangers of Accuracy' (2018) 4 *European Data Protection Law Review* 36, 37.

⁴¹ The Delegation for Correct Payments from the Welfare Systems, 'The leakage in welfare systems, part 2 The extent of improper payments from welfare systems', Report no. 6 (2019) 63.

⁴² The Delegation for Correct Payments from the Welfare Systems (n 18) 10.

⁴³ SSA, 'Annual Report 2021' (In Swedish) (2021) 25.

In these contexts, references to 'inaccurate data' cover a wide scope of reasons and types of inaccuracies, ranging from conscious to inadvertent errors and from individual to organisational explanations. The focus here is, however, the SSA's efforts to improve the factual as well as structural accuracy of data collected from the claimants themselves.

A case concerning the right to a social security benefit is usually initiated through an application filed by the claimant. The claimant must therefore provide an account for the grounds on which a right to the specific benefit purportedly is to be established, as well as provide for some facts and evidence to substantiate that claim. These parameters are still relevant in contexts where decisions on benefits are made fully or partially automated. Where procedures for automated case management and decision-making are deployed, however, the data collection is usually done electronically and in a way that is conducive to the data becoming machine-readable. For example, in the Swedish social security context the use of digital applications to collect relevant data and information from a benefit claimant has often been seen as a sort of practical prerequisite for the subsequent administration to be handled automatically – as paper-based applications often require too much initial manual handling to be effectively translated into automated processes.⁴⁴ One factor of importance for the data structuring is therefore also that the information provided by the claimant through digital self-services is likely to have been submitted without the involvement or assistance of any human administrator. As this is a risk factor for the data submitted by the benefit claimant to be unstructured in a way that, among other things, makes automated processing impossible or difficult, the design of digital self-service solutions has been a focus area for the SSA.

In a Swedish public inquiry by the Delegation for Correct Payments from the Welfare Systems, the commission highlighted, based on findings in interviews with respondents from the SSA, a perception that the responsibilities of claimants to provide correct information have become stronger through self-service and automation. The SSA respondents indicated that the agency's involvement in manual processes is usually higher, and that the information provided by claimants is therefore more likely to have been provided in a dialogue with a caseworker – where the caseworker manually enters the information from the application or at least reviews the scanned information before making a decision. The respondents viewed that this increases the chance of detecting any discrepancies and ambiguities before a decision is made, and that the responsibility for providing correct information can therefore be considered or perceived to be more shared in a manual process.⁴⁵ Similar observations have also been made by the SSA in a working report stating that automation in most cases means a transfer of responsibility from the authority to the claimant to handle the necessary information correctly.⁴⁶

⁴⁴ The Delegation for Correct Payments from the Welfare Systems (n 18) 42.

⁴⁵ *ibid* 37.

⁴⁶ The Swedish Social Insurance Inspectorate (n 8) 20.

One reason why the SSA takes a strong interest in digital design measures for improving the accuracy of data submitted by the claimant (both in the factual and structural sense) is the fairly high reliance that the agency often must place on this information. There are benefits where decisions on eligibility are sometimes made exclusively based on the information provided by the claimant.⁴⁷ Nationally, this has been identified as a risk factor affecting the likeliness of Incorrect data being submitted – either as a result of misunderstandings or knowledge deficits on the part of the applicant, or as a result of deliberate attempts to cheat.⁴⁸ Although it is more common that at least some of the information is cross-checked against other data sources or supplemented with additional data from various actors such as employers or healthcare providers, the reliance on claimant-provided data remains substantial. Due to the personal or social nature of some relevant information in social security administration, there may not always be a viable alternative provider other than the claimants themselves.

Traditionally, the main legal mechanism in Sweden aimed at ensuring that the information provided by a claimant of Swedish social security is factually accurate has been that it must be submitted on the basis of honour and conscience (*heder och samvete*). This is a type of truthfulness requirement which is linked to criminal liability for the claimant.⁴⁹ However, as social security benefits are often paid or distributed continuously rather than through one-off payments or deliveries, this means information that was accurate at the time of submission may become inaccurate or out of date over time. For many types of information, the claimant therefore has an additional lawful obligation to report to the SSA when certain stated circumstances of importance for eligibility have changed.⁵⁰ The high prevalence of inaccurate data despite criminal liability, however, reveals that the measure is not in isolation capable of tackling the problems of inaccurate or outdated data in the social security administration. Firstly, there are obviously occasions where applicants consciously, to falsely establish their right to compensation, submit faulty or misleading information despite this liability. Secondly, another common reason for inaccurate or faulty data is knowledge deficits among claimants regarding what information is relevant, as well as regarding the associated obligation to notify the SSA on updates to that relevant information.⁵¹ The SSA has therefore engaged in developing complementary strategies to try and improve the factual accuracy of such data that have originated

⁴⁷ The Delegation for Correct Payments from the Welfare Systems (n 18) 37.

⁴⁸ *ibid* 65.

⁴⁹ Swedish Social Insurance Code (110:110), Chapter 110, Section 4; Swedish Law on subsidy offences (2007:612), Chapter 15; Swedish Criminal Code (1962:700), Sections 2–3; Section 1. The requirement to provide information on the basis of honour and conscience exists in several sectors of Swedish law. For example, appointed guardians, tutors and trustees must on the basis of honour and conscience provide a list of the property they administer to the competent supervisory authority. To certify that information is provided based on honour and conscience is also part of the Swedish oath of testimony taken before courts.

⁵⁰ Swedish Social Insurance Code (110:110), Chapter 110, Sections 46–51.

⁵¹ The Delegation for Correct Payments from the Welfare Systems, 'Report no. 4, The leakage in welfare systems, part 1' (In Swedish) (2019) 18, 63.

from the claimant. Some of these strategies have simultaneously served the purpose of structuring the data collection from claimants in a way that favours its possible utilisation in automated processes.

As automated processes often premise or are greatly facilitated by digital applications, the SSA has pushed in particular for furthering the use of electronic applications via web-based and standardised forms with limited options for entering free text. The claimant might, for example, be asked to fill in a digital form by ticking check boxes or chose between existing options in a roll-down menu. The options presented have been designed to correspond to the eligibility criteria and enable validation as well as evaluation through automated checks.⁵² This type of standardisation has been generally promoted as a tool for guiding the claimant into submitting accurate and relevant information, while also enhancing the additional feature of facilitating the machine-readability of that information. This approach also aligns with recommendations by the European Data Protection Board (EDPB), which lists the presenting of concise predetermined choices instead of free-text fields as one possible key design and default accuracy element when using technological and organisational design features to reduce risks of data inaccuracies.⁵³

However, while concise and predetermined choices are conducive to data accuracy in the sense that they can reduce the risk of information being missed or entered incorrectly and better the chances of that data instead being entered consistent format which is machine-readable, they do risk restricting how the benefit claimant may present his or her case. As put by Davis, drop-down menus will shape choices in more confining ways than write-in boxes do.⁵⁴ There is thus a risk that the limited options available in pre-set choices do not allow for all the possible experiences or situations of the claimants to be explicated. Some claimants may therefore not be able to convey their circumstances or expectations fully and precisely through the application. It should therefore be noted that electronic application forms may function as a simplification and standardisation tool that reduces the possibilities for claimants to express and phrase their claims as well as account for their circumstances and needs freely and in their own words. In Sweden, there is no express regulation in the national social security or administrative law framework that mandates the use of free-text fields in social security administration or any other public administration sector. However, as long as there is no specific statutory mandate, the SSA as well as other national public agencies are obliged to accept applications in any format (where the agencies duty of care is activated if that application does not meet formal requirements).⁵⁵ Nationally, the SSA does have fairly extensive delegated powers to adopt binding instruments that prescribe the use

⁵² SSA (n 43) 137; The Delegation for Correct Payments from the Welfare Systems (n 18) 42 f.

⁵³ European Data Protection Board, 'Guidelines 4/2019 on Article 25 Data Protection by Design and by Default' (2020) Version 2.0, p. 23.

⁵⁴ Jenny L Davis, 'How Artifacts Afford: The Power and Politics of Everyday Things' (The MIT Press, 2020) introductions section.

⁵⁵ Swedish Administrative Procedures Act (2017:900), Sections 19 and 23.

of specific designated application forms. This mandate does not allow for solely digital services and the agency therefore provides paper versions of all benefit-specific forms which must fully corresponded to the digital ones (so that there is always the option to submit a claim manually). To avoid a too-strict formalism on the types of information that a claimant is allowed to submit in the application process, the SSA also includes free-text options in all paper as well as electronic application forms. As put by a representative from the legal department of the SSA:

And the [SSA's] legal department was clear early on that 'no, there is a limit here'. The Administrative Procedure Act says that we must accept an application. That application, if there is no legal basis for it, can be made on a piece of blotting paper. Unless there is a paragraph in the law that says you have to apply on form x. And the SSA has quite a lot of regulatory power, that we can prescribe how to apply for these benefits. And then we prescribe that you should apply on specific SSA forms, and then we make a form that you must use. [...] And this means that today our digitised application systems are adapted in this way with a drop-down menu or help texts or something. And often in the system you can choose free text fields, but then there is often an outcome [to manual handling].⁵⁶

As seen, while there is not any expressly regulated obligation to allow for free-text options, an obligation to accommodate claimants' diverse information needs could be derived from principles of good administration as manifested in the national Administrative Procedures Act. At the same time the SSA has also taken measures to try and avoid free-text options being used on a regular basis, as the text entered most likely requires manual handling before an automated decision-making procedure can assume the administration. As expressed by the same SSA representative as quoted above, the agency has therefore chosen to design the interface for the application forms so that the claimant is not given the impression that free text is needed to complete the form or for bettering their chances for success. This practice can be considered a form of 'nudging' for the dual purposes of structuring the data collection and preventing claimants from mistakenly believing that free-text entries are mandatory or necessary:

But they [free text fields] are very rarely open directly, you have to make a choice to get to those free text fields. Because we want everyone to just click in and so on, so that it can flow through manually. If you don't need the free text field, we don't want you to be forced to use it. And it can confuse the person filling out the form, 'do I have to write something in this field?'. It becomes a bit, 'what other information does the authority want?'. So you try to work with help texts and this type of drop-down menu and so on.⁵⁷

⁵⁶ Quote from interview with one legal expert within legal department of the SSA (the author's translation).

⁵⁷ *ibid.*

Notably, the inclusion of free-text responses does not ensure that claimants have a meaningful opportunity to freely argue their case and present their evidence as they deem fit, unless such entries are thoughtfully evaluated and appropriately addressed. In SSA's 2019 internal evaluation of partially automated sickness benefit cases, however, the agency identified some shortcomings in how information that had been provided by individuals in free-text fields or otherwise had been attached in electronic applications or medical certificates was considered in the eligibility assessments. The investigation found that such information had been missed in nine per cent of the reviewed cases. Examples were failure to consider information indicating another sickness period than otherwise assumed, or information that contradicted what was stated in the medical certificate. Another example was information indicating that the claimant was in need of rehabilitation measures being left without action (the SSA has a legal obligation to coordinate rehabilitation measures).⁵⁸ Similar experiences can be found in the SSA's internal review from 2019 on the automated case management of the temporary parental benefit, where internal auditors noted that the electronic application did not include any free-text options and that the claimant was therefore limited to only providing such information that the form allowed. This was seen as problematic, as it in practice meant that no room was left for the individual to state relevant information such as whether his or her employment relationships were more complicated than the application form allowed space for – information that could possibly affect their right to compensation.⁵⁹

The SSA's efforts towards further utilising digital tools for improving the factual as well as structural accuracy of data collected from the claimants have intensified. Since 2022, the SSA has actively employed behavioural insights on human motivations and behaviour to incorporate data-driven models into the digital interfaces through which claimants engage with the agency. The objective is to push the claimants towards 'doing the right thing from the start' when filling out their digital application forms. The system evaluates the potential for inaccuracies in the application before the claimant signs it. If a high risk of inaccuracies is detected, the system sends a 'nudge' message to the claimant, recommending a revision of the application details. However, the option to submit the application as it is remains available. The SSA's initial work on behavioural insights has so far been conducted within the temporary parental benefits administration, where user feedback has been collected for consideration in the further development work and potential extension into other benefit administration procedures. Data-driven behavioural insight practices by the agency are expected to significantly reduce inaccuracies in applications.⁶⁰ This example therefore signifies that service and control functions can become more

⁵⁸ SSA, 'Sickness Benefit Cases that are Partially Automated. Legal Quality Monitoring 2019:3' (In Swedish) (2019) 31.

⁵⁹ SSA, 'Automated Decisions - Temporary Parental Allowance. Legal quality monitoring 2019:1' (In Swedish) (2019) 28.

⁶⁰ SSA, 'Response to a Government mandate. Report – Right from the Start' FK 2022/002575 (In Swedish) (2023) 3.

intertwined in an automated context. Here, the service aspect is evident when the claimant is nudged towards submitting information that is needed to assess his or her claim. It is, however, also evident that there is a control aspect present in this arrangement that relates not only factual accuracy, but also to shaping how the claimant will argue his or her case in a way that is guided by the legal criteria for eligibility as well as by the technological affordances of the digital systems (which shapes the options available for the claimant).

The above-mentioned examples of SSA digital practices are disparate and do not amount to any empirical claims or allow for any comprehensive analysis of their specific and actual impacts on claimant's opportunities to freely argue for their eligibility. The extent to which highly structured data collection may create genuine risks in this respect can also vary greatly. Where the specific eligibility criteria are non-ambiguous and 'objectively' verifiable to a high extent, the nudging towards use of checkboxes or roll-down menus is more unlikely to pose any significant risks of overly formalistic application. The conclusions of the Swedish Delegation for Correct Payments from the Welfare Systems were, for example, that the volume-heavy benefits that have clear eligibility criteria, and where there is also good access to structured data, are the ones that have been automated within the SSA.⁶¹ The examples used in this article are, however, meant to be illustrative and indicative of a trend towards the growing importance of structuring the data collected from claimants as a necessary precursor to realising goals of increased automation and digital services within the social security administration. As such, they also serve as an illustration which prompts further considerations on this trend in light of the principles of good administration.

5. Conclusions – Welfare Conditionality and the Blind Spots of Automation

This article has discussed how the need for data accuracy within the context of automated social security benefits administration is premised not only on the factual, but to a high extent the structural accuracy of the data that is automatically processed. It has also discussed how social security administrations' active efforts to enhance accuracy can, as a result, potentially impact the way claimants are able to present their claims and identities, as well as lead to the delineations between the administration's service and control functions becoming more blurred in automated contexts. These findings underscore the need for jurisprudence to monitor how the impact of principles of good administration might be affected.

The primary concern here is that the rigidity that comes with excessive standardisation might ultimately conflict with established principles of good administration, such as the right to be heard, the right to a fair procedure and the

⁶¹ The Delegation for Correct Payments from the Welfare Systems (n 18) 42.

duty of care.⁶² These principles accentuate the entitlement of every claimant to impartial, fair and timely handling of their affairs. They oblige administrations to diligently establish and assess all relevant factual and legal aspects of a situation, considering not only their own interests but also all other relevant concerns, before making decisions or undertaking any further actions. Without such considerations, the standardisation-induced rigidity combined with the applicational rigidity associated with automated procedures could undermine the pursuit of individualised justice and limit individuals' chances of effectively arguing for the relevance and accuracy of their specific data circumstances, thereby possibly also preserving biases inherent in the system. Here, the Swedish case highlights that it is important, in the context of principles of good administration in the digital age, to provide benefit claimants with an opportunity to argue their case in free text. By extension, it is thus also important to ensure that low-structured data is not excluded from utilisation within automated procedures without valid justification, and that there are technical and organisational measures in place within the administration to ensure that any additional and typically low-structured data (evidence) that are submitted by the claimant are considered and addressed. But even if optionality is secured, it is still important to caution administrations against relying excessively on standardised data in their automated administration. If the successful automation of a process heavily relies on highly structured data from claimants, it might not be advisable to automate that particular procedure considering the potential risks of misalignment with the eligibility criteria that the system is meant to enforce.

The risks to limiting the claimants' ability to present their case freely could, to some extent, be mitigated by granting rights to rectify inaccurate data or decisions. Article 16 of the GDPR grants individuals the right to rectification, empowering them to request corrections to personal data that is either inaccurate or incomplete, considering the intended purposes of data processing. However, uncertainties arise regarding the applicability of this right to non-factual data that may not be objectively verifiable.⁶³ Dimitrova argues that the GDPR right to rectification has the potential to address not only factual errors in individual data points but also issues related to low data quality arising from processing operations, extending beyond factual accuracy in the strict sense. This perspective allows for rectification even when dealing with non-

⁶² Principles of good administration are established at different normative levels and through different but sometimes also common legal instruments across international as well as European and national jurisdictions. The right to be heard, the right to a fair procedure and the duty of care all belong to the acquis of common standards of good administration which at least applies within the EU, although their specific national application may vary. This is not the least evident from Article 41 of the Charter of Fundamental Rights of the European Union [2000] OJ C 364, which includes these principles and which, although addressed to European institutions, according to CJEU case law is built upon general principles which also applies to individual Member States: C-604/12 H. N. EU:C:2014:302, [49]–[50]. See, also, Wróbel (n 16) 214; Eva Menéndez Sebastián and Belén Mattos Castañeda, 'Better Decision-Making, Algorithmic Discrimination and Gender Biases: A New Challenge for the Administration of the 21st Century' 2023 *European Review of Digital Administration & Law* 45, 48 f.

⁶³ Dimitrova (n 24) 4.

factually verifiable data.⁶⁴ Incorporating procedural safeguards, such as a right to review or reassessment at the administrative level (as seen in Swedish administrative law), where claimants can rectify decisions based on erroneous or misleading data without resorting to court appeals, could further address these concerns.⁶⁵ However, while these reactive measures offer a form of redress in cases where heavily guided and restricted possibilities to freely present circumstances in the context of a social security claim have led to faulty decisions, they still necessitate active and initiated engagement by claimants. With this article's emphasis on ensuring the value and assurance derived from structured data collection from claimants do not result in excessive datafication and overly formalistic applications, the primary concern is preventing a compelled flattening of identities. Such flattening could potentially conflict with the aims and criteria essential to the provision of benefits. Consequently, addressing this concern primarily falls within the purview of social security administrations themselves.

Naturally, not any degree of standardisation, even if it means that the claimants' circumstances are presented at a level of abstraction, should be seen as overriding those principles of good administration that support the ideals of individuality and fairness in decision-making. A lack of direct regulation and case law also makes the distinct delineations hard to draw. Nevertheless, it is crucial that the consequences for claimants are continuously assessed in the developing of digital services that are used to collect, structure and utilise data which the claimant submits as evidence. In other words, and as expressed by Mussgnug, the administrations must assume an 'ontological responsibility' when incorporating metrics and shaping choices through digital formats. In highly regulated decision-making such as within social security administration and benefits eligibility, this responsibility entails ensuring that the design of digital services respects the multifaceted nature of individuals and their circumstances, ensuring that it remains human-centred through aligning with the underlying principles and intentions of the regulations.⁶⁶ Otherwise, there is a risk that, as feared by the UN Special Rapporteur on extreme poverty and human rights,

⁶⁴ *ibid* 2.

⁶⁵ According to Section 36 of the general Swedish Administrative Procedures Act (2017:900) a decision that contains an obvious inaccuracy on account of a clerical error, arithmetical error or a similar oversight by the authority or someone else may be corrected by the authority that issued the decision. Section 38 also states that an authority shall vary a decision it has issued as the first instance if it considers that the decision is obviously wrong in some significant respect because of new circumstances or for some other reason; and the decision can be varied quickly and easily without this being to the detriment of any private party. For social security benefits decisions, the conditions for amending social security decisions are also covered by special regulations in Chapter 113, Section 3 of the Social Insurance Code (2010:110), but as far as relevant here, contains a similar obligation to amend a decision that has become incorrect because it was made on obviously incorrect or incomplete grounds.

⁶⁶ Mussgnug (n 38); Brian Lee-Archer, 'Effects of Digitalization on the Human Centricity of Social Security Administration and Services' (2023) 87 *ILO Working Paper* 87.

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the development leads to a dehumanised case management that allows no room for meaningful questioning or clarification.⁶⁷

⁶⁷ Report of the UN Special Rapporteur on extreme poverty and human rights, Philip Alston, 11 October 2019, 17.