

Putting humans first

Digitisation of government services from the citizen's perspective

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1. Introduction

Trust is a core component of human relations. Over the past years, there have been several major scandals in the Netherlands that have hurt the citizens' trust in the authorities. In the northern province of Groningen, for instance, the authorities were slow to pay compensation for the damage caused by earthquakes to the homes of thousands of residents. The earthquakes had been brought on by the sinking ground following decades of gas extraction. Possibly even more damaging was the so-called *childcare benefits scandal*. Due to a combination of rigid regulations, the use of defective algorithms and data for detecting fraud - wrongly accusing no less than 26,000 families of fraud – and the distrustful attitude of the implementing officials, several thousands of families were required to pay back large amounts, which drove some of them in financial hardship. Moreover, the families received inadequate protection from the judiciary. The scandal led to the resignation of the third Rutte cabinet. In November 2021, the highest administrative court apologised to the affected families: a first in Dutch legal history.

Waning trust in the government is a common occurrence in many countries.² This became blatantly clear during the Covid-19 pandemic when certain groups in society, supported by social media, proved extremely distrustful of the government. It is against this background of eroding trust in the government and a state under the rule of law that we write this chapter on the digitisation of government services, with a special focus on the role of the law and legal professionals. A highly topical issue. The digitisation of society is on the rise and public authorities will continue to further digitise their services. If, however, they fail to consider the citizen's perspective - a people-oriented approach -, or fail to do justice to legal principles, the faith of citizens in the government is at risk of being eroded even further.³ Lower trust in government will have negative effects on the public's willingness to comply with regulations and the overall functioning of the rule of law. Conversely, a well-wrought citizen-centric approach in organizing government services will have positive effects.⁴

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² See generally, <https://www.oecd.org/gov/trust-in-government.htm>

³ See generally C. Coglianese, *Administrative Law in the Automated State*, *Daedalus* 150:3 (2021), on the increasing use of algorithms in administrative law and the challenge to ensure that an automated state is also an *empathic* one.

⁴ E. Dudley, D. Yi Lin, M. Mancini & J. Ng (2015). *Implementing a citizen-centric approach to delivering government services*. McKinsey Center for Government. <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/implementing-a-citizen-centric-approach-to-delivering-government-services>

Based on Dutch practice, this chapter makes connections to theoretical insights on several points. It is a record of our experiences over the past years with using digitisation to enhance citizens' access to the law and to improve the way in which (internal and external) processes of public legal departments work. Although interest is on the up, we feel that legal professionals do not pay enough attention yet to this topic, while it is of major importance to a well-functioning state under the rule of law. For today's citizens, after all, contact with the authorities is mostly digital. In almost all procedures digital aspects play a role. Such – partially – digital processes and procedures should be designed with an eye to legal principles (such as careful consideration and transparent and well-founded decision-making) and *procedural justice*. This latter concept refers to how citizens experience procedures and is affected, among other things, by the extent to which citizens feel they can present their position (*voice*), receive clarification (*explanation*) and how they are treated (*respect*). Achieving an appropriate level of procedural justice is not only intrinsically valuable, but also has a favourable effect on the valuation of outcomes and interactions with the authorities.⁵ From a more practical perspective, we also believe that designing (the digital implementation of) regulation from the citizen's perspective might require more effort upfront, but will prove to be more cost-effective in the long run, by increasing the overall ability of citizens to manage their own affairs, while preventing errors and unnecessary procedures.

In the wake of the childcare benefits scandal, Dutch parliament asked the Council of Europe's Venice Commission for an opinion on the rule of law in the Netherlands. The Commission concluded that the Netherlands, 'in general, is a well-functioning state with strong democratic institutions and safeguards for the rule of law.'⁶ The Commission, however, listed several points for improvement in, among other things, workable regulations and supervision of implementation. Elements that did not work well in the childcare benefits scandal. Here, the following recommendation of the Commission is particularly relevant:

*'For individuals, access to relevant information should be made easier, complaint procedures should be made simple and informal and help should be offered on how to complain under a duty of neutrality.'*⁷

This chapter explores how digitisation can contribute to realising this recommendation.

2. Structure

The chapter is structured as follows. We will first advocate the importance of the citizen's perspective as a starting point in government services. That is important because digitisation is often shaped from the government's perspective, while this is not the best starting point for helping citizens. We will then go on to outline the opportunities digitisation offers to support citizens in government processes containing major legal aspects.⁸ We will use simple examples from our own experience – also outside the public domain – and repeatedly refer to the *administrative appeal* (in Dutch: *bezwaarprocedure*). This is a core procedure in Dutch administrative law that enables citizens to officially object to government decisions that affect their legal position. By that procedure citizens

⁵ See generally T.R. Tyler & E.A. Lind, *The Social Psychology of Procedural Justice*, New York: Springer Science, 1988.

⁶ European Commission for democracy through law/ Venice Commission (2021). *Opinion on the legal protection of citizens. Adopted by the Venice Commission at its 128th Plenary Session*, p. 26. url: [https://www.venice.coe.int/webforms/documents/?pdf=CDL-AD\(2021\)031-e](https://www.venice.coe.int/webforms/documents/?pdf=CDL-AD(2021)031-e)

⁷ *Ibid.*, p. 28

⁸ A general discussion of the possibilities of digital procedures can be found in R. Susskind, *Online Courts and the Future of Justice*, Oxford: Oxford University Press 2019.

can express their content-specific objections, expand on the consequences of the decision for them personally, and supplement any missing facts. The procedure is settled within the same government organisation, but at a different level than where the primary decision was made. In practice, legal professionals within the government organisation handle the procedure. The rationale behind the administrative appeal is that it allows the authorities to reconsider decisions and remedy any errors or incorrect interpretations in the primary process. The procedure is the mandatory gateway to the administrative court. Every year, government agencies in the Netherlands handle over 2.5 million administrative appeals, which makes it the primary 'complaint procedure', as referred to in the Venice Commission's recommendation, in Dutch administrative law. Citizen-friendly digitisation that supports citizens better and prevents unnecessary administrative appeals could thus have a major impact and, as mentioned above, contribute to overall trust in government and cost-effectiveness of governments services.

Lastly, we will go into safeguarding the link between digital systems and regulations. Responsible and effective digitisation from the citizen's perspective demands offering transparency to users about the regulations on which the systems are based and the exact functioning of systems. Legal rules can never be converted directly to a digital system. This requires many choices and interpretations on how to 'translate' the rules to a digital system. Offering transparency therefore requires a methodology that includes some form of knowledge models that document - in a very detailed manner - how rules are translated to a system.⁹ A sound methodology, however, is regularly missing in practice. Our experience is that legal professionals, for lack of knowledge, are often not aware of the importance of a methodology, nor is this fully on the radar of many ICT professionals. Fortunately, practitioners and researchers increasingly have honed in on this subject over the past years.¹⁰ In a recent opinion, the Dutch Council of State stressed the importance of using a methodology in preparing and designing the digital implementation of regulations.¹¹ We will highlight some key elements of the methods that could be used and in closing will present an overarching conclusion.

3. Government Perspective Dominant in Digitisation

Digitisation in public administration commonly starts from how authorities are organised. Various processes that must be completed within government bodies are very suitable for forms of automation and digitisation. Especially where large numbers of decisions must be made, fixed routines are established. They offer a good starting point for digitisation, and this is what frequently happens. It is the government body that primarily benefits. Even though citizens are meant to benefit from better government services – and this usually holds true for simpler services – citizens often suffer from adverse consequences of this modernisation: authorities appear to become (even more) inaccessible. Often, it is not easy to speak to an actual member of staff, and the routes of decision-making are often untraceable for citizens.

In the current situation, procedures for applying for benefits, allowances and licences usually focus on the question that is crucial to the authorities: What is the right decision to be taken by a specific

⁹ Instead of this knowledge 'being locked up in the system', see M.H.A.F. Lokin, *Wendbaar wetgeven, De wetgever als systeembeheerder*, 'NILG serie: Governance & Recht', Den Haag: Boom Juridisch, 2018 (see p. 297 of the English summary)

¹⁰ The research of Lokin (2018) in the previous note is a good example.

¹¹ In today's practice, most regulations require some form of digital execution, albeit partially, making these methodologies important for virtually all new regulations. Council of State, *Digitalisering wetgeving en bestuursrechtspraak*, Den Haag: Raad van State. 2021 <https://www.raadvanstate.nl/@125918/publicatie-digitalisering/>

government body based on a particular law? In the authorities' way of thinking, the implementing of rules might call for a different organisation for every rule. If there are ten laws to be implemented, it could be efficient to engage ten organisations: one organisation for each law. Sometimes, these are different departments within one organisation, such as departments of a municipal authority. Sometimes, these are organisations that work independently of each other. The citizen's role is often bent to fit that mould. Citizens must split up their problems or requests for help into parts in accordance with the logic of the government body. With every part, the government body is interested only in those particulars that are relevant to the regulations on that part. The ability of citizens to play their role well in this landscape is generally overestimated. The division of citizens' problems into different parts pushes citizens as a whole out of the picture. Citizens can also get into a Kafkaesque fix if somewhere within the government organisation information is administered incorrectly and is then accepted as correct by other institutions.¹²

4. The Citizen's Perspective Is Different

The world of citizens is not made up of laws but of life events or problems that are relevant to them and often bring them into contact with government bodies. For instance, income, birth, divorce and work are subjects that require every citizen to get involved with the government. This applies even more for citizens who have financial problems. Citizens who are in financial dire straits will find that the Dutch government has designed all kinds of rules to help them, each with its own portal: Social assistance, special assistance, other individual allowances, unemployment benefits, and several other portals. In Covid-19 times, the number of portals has become even higher. From the citizen's perspective, just one subject or question is relevant: How can the government help me to keep my head above water? A question that is not split up in the myriad questions that are dominant in the government's perspective: Does this citizen qualify for *social assistance*, for a *municipal allowance*, *unemployment benefit*, or *Covid-19 financial support*? Part of the joint project of Amsterdam University of Applied Sciences and various government bodies (see footnote 1) is an experiment with a large Dutch municipality in which the first steps are being taken towards a *Virtual Income Portal* that applies an approach from the citizen's perspective to provisions in which the municipal authority is involved.¹³ The ultimate goal is to assess all different income schemes via one application, which is made as simple as possible.

The government's perspective is dominant also in the administrative appeals mentioned earlier. They follow the government's mould: The central question for the authorities is whether a specific decision is correct or not. Usually, this does not align with the citizen's intentions. That citizen simply follows the route of filing appeal because the problem for which the application was filed has not yet been resolved, and the letter or email they received from the authorities mentioned the possibility of appeal. More and clearer explanations, applying to a different portal, filing a new and improved application, a good conversation or aid are often alternatives to resolve the citizen's problem that are more likely to succeed. After all, as a rule, citizens do not wish to litigate against the authorities. They want a solution to their problem or at least a better explanation to help them understand why the authorities cannot offer a solution.

If authorities would offer digital support from the citizen's perspective, there is a change in perspective of the design of application procedures and decision-making. In our opinion,

¹² See generally, M. Van Eck, *Geautomatiseerde ketenbesluiten & rechtsbescherming: Een onderzoek naar de praktijk van geautomatiseerde ketenbesluiten over een financieel belang in relatie tot rechtsbescherming*, Tilburg: Tilburg University, 2018 (p. 440 for a summary in English)

¹³ The experiment is led by ICTU: the Dutch centre of expertise for government ICT. See <https://www.ictu.nl/about-us>

administrative law professionals should have an important say in this, together with communication professionals and other experts. Whenever ICT professionals are in the lead, as they often are in practice, they tend to seek a link with existing work processes and procedures. Innovative design is possible only if administrative law insights are combined with the leeway provided by regulations, principles of service design – which always revolves around the user: citizens in this case –¹⁴ and the possibilities offered by ICT. The criteria of people-centred justice set by the Organisation for Economic Co-operation and Development (OECD) also offer useful points of reference.¹⁵

A basic principle in designing from the citizen's perspective is that we cannot expect citizens to understand all the rules. This causes friction with the adage applied in legal practice that citizens are *presumed* to know the law. Although at times it should be possible to remind citizens that ignorance is not an excuse, it is a welcome development that administrative law gradually applies a more realistic viewpoint. In the Netherlands, the 2017 report of the Scientific Council for Government Policy, *'Why knowing what to do is not enough. A realistic perspective on self-reliance'*¹⁶ played a major role. In summary, the report analyses behavioural insights, concluding that the *capacity to act* (a citizen's actual ability to act in concrete situations) is less than a citizen's *capacity to think* (the ability to theoretically know how they should act). The government's actions are often wrongly based on the assumption that offering information (so that citizens *know* what is expected of them) is enough to make citizens *do* what is expected of them. For most citizens, this assumption is not realistic. That knowing what to do is not enough holds even more true for citizens who are in vulnerable positions, permanently or temporarily. Examples include (temporary) poverty, or having to cope with death, divorce or other life-changing events. These behavioural insights require that digital government services are designed as citizen-friendly as possible to enable even citizens with a limited ability to act to digitally get their affairs in order.¹⁷

It is important to stress that digitisation should never be the only possible route. Some citizens cannot use even the most user-friendly digital tools. Personal contact should always remain possible, therefore.¹⁸ Our view is that personnel capacity at government bodies always has its limits. Well-designed and user-friendly digital tools are valuable in making optimal use of this available personnel capacity. They allow a large majority of citizens to independently settle their business with the authorities digitally, and to offer personal support to those citizens who need that support, because their capacity to act is limited, permanently or temporarily, or who are subject to special circumstances.

5. Possibilities of Digitisation from the Citizen's Perspective

Below we will outline some simple examples and subjects where digitisation can support public legal services. Our sources of inspiration include our experience with the digital design of divorce procedures at Uitelkaar.nl and collaborations with a variety of government institutions, where we

¹⁴ See e.g. L. Downe, *How to design services that work*. Amsterdam: BIS Publishers, 2020. This book formulates principles of service design and, based on, among other things, work on redesigning services for the UK government.

¹⁵ <https://www.oecd.org/governance/global-roundtables-access-to-justice/oecd-criteria-for-people-centred-design-and-delivery-of-legal-and-justice-services.pdf>

¹⁶ Scientific Council for Government Policy, *Weten is nog geen doen. Een realistisch perspectief op redzaamheid*, Den Haag: WRR, 2017. English summary via:

<https://english.wrr.nl/publications/reports/2019/10/14/why-knowing-what-to-do-is-not-enough>

¹⁷ See also, S. Ranchordas, *Empathy in the Digital Administrative State*, Duke Law Journal (vol. 72, 2022, forthcoming)

¹⁸ Also see footnote 6, p.27

trained a great deal of legal professionals in the basic principles of service design and the possibilities offered by digitisation. These legal professionals then built prototypes for digital decision-support tools for processes from their own practices. Subsequently, promising prototypes were further developed. The first prototypes have been implemented, with more to follow.

The digital services¹⁹ provided by Uitelkaar.nl aim at supporting partners who want to realise their divorce amicably and wish to avoid a nasty divorce. The services are based on the partners' perspective: What is the best way to help them getting divorced by mutual agreement? Once they have made arrangements for the children, the division of their assets and so on, the court can pronounce divorce in a simple procedure. Providing information, setting up a well-supported dialogue between the partners, and helping them draft the relevant legal documents required for the divorce are all part of the system. The underlying idea is that the system supports understanding for the partner, cooperation, and de-escalation of points of dispute. Here, too, digitisation is not an isolated tool; the partners are also supported by a case manager offering human contact where necessary. A solidly designed digital system, however, considerably increases a citizen's self-reliance. The experiences of the case managers and the on-going analysis of the questions that users pose help to improve the digital system continuously and to respond to user needs even better. Ultimately, this method will ensure that limited human capacity will be employed as effectively as possible: When really necessary. At Uitelkaar.nl, partners achieve a high degree of self-reliance in complex divorce proceedings. This shows the potential for increasing that self-reliance also in government procedures.

a. Increasing the Citizen's Capacity to Act

Digitisation from the citizen's perspective can first of all help citizens to effectively find their way through the red tape. Information could be offered in a form that meets the citizen's needs. Meaning not the full text of a law, or long pieces of legalese on websites, but information that focuses on the information citizens want to know. By asking some simple questions, it is possible to offer more specific information without a citizen having to decide which bits apply. This is the practical application of a service design principle that information should be offered in an understandable, task-oriented and layered way, when it is relevant for users. Uitelkaar.nl implements this principle by providing information in doses, at a point in time when they need it to make the arrangements that the partners work on. For instance, when the partners are ready to make living arrangements, the information that is offered is confined to what is relevant to them. That means no information on owner-occupied properties, if they live in a rental. Precisely because the users have access to the information anytime when it suits them, this method of providing information is usually more effective than providing more general information or information provided by a portal, as it gets lost more easily.

Of course, authorities sometimes already provide simple diagnostic tools for citizens to offer them more specific information on their particular situation. However, most authorities still apply the traditional government perspective that revolves around separate laws. That means that information is provided on the question whether a citizen is eligible for a specific decision, or specific benefit, or subsidy from a specific government body. This is not always the question asked by the citizen, who has just been fired or gotten a divorce and wishes to know what this means in relation to the government. Or a citizen has fallen into debt and is looking for a way out. In those cases, it is not about whether a specific administrative body could help that citizen with a specific decision, but

¹⁹ Initially developed by the Hague Institute for the Innovation of Law (see footnote 1), currently implemented independently by Justice42, under the name Uitelkaar.nl.

about what *all* administrative bodies and *all* relevant regulations combined could mean to that citizen. With that as starting point, a digital system could offer support that goes beyond the demarcated competences of authorities. An example from Uitelkaar.nl's practice is that in settling a divorce the income position of one or both partners can present a problem. Often, they are not aware of the problem because other aspects of the divorce claim their attention, and they have no insight yet into their finances after the divorce. The digital system identifies the problem well in time and can help to get the partners' finances in order or grant access to useful facilities.

Of course, a citizen's ability to act does not relate only to finding the right information, but also to how that information could be used best in the given situation, e.g. filing an application or objection, or appealing to a court of law. Those actions call for the drafting of a document which for many people presents a high threshold. Most people are not well-versed in drafting such documents and are afraid to make mistakes that will come back to bite them. Here, digital support could really help, both in drafting the document and in supplying data.

At Uitelkaar.nl, partners wishing to divorce draw up a covenant that should address many of the issues that should be resolved. 'Ordinary' citizens, not skilled in the subject matter, appear perfectly capable if further to a diagnosis sound information and possible solutions are provided as well as relevant sample texts. Fun fact: The texts produced are often much less complicated than if they had been drawn up by a lawyer, while legally adequate to determine the claims. This is a step forward: Ultimately, the citizens concerned are the ones who should understand what has been put down in writing.

For now, digital support that goes beyond providing information by the authorities is not very common or advanced. In the research project mentioned earlier, several municipal authorities work on developing a system that supports requests under the Government Information (Public Access) Act. The system covers internal aspects (supporting the public officials who have to handle requests correctly and in doing so have to weigh up the interests at stake). But the subsequent objective is to serve citizens better and to provide targeted information in a user-friendly manner about their rights in relation to access to government information. The ultimate objective of digital support is to help citizens shape their requests in a well-informed and structured manner, thus increasing their *capacity to act*. Requests under the Government Information (Public Access) Act, incidentally, often show that citizens are not so much interested in obtaining information as in presenting an underlying complaint or question that could be resolved by means of a conversation or explanation. A digital system could continue to ask questions, identify the issue, and suggest a more appropriate route, if necessary.

Sometimes citizens are convinced that a government body has taken a wrong or unreasonable decision. As part of the project of Amsterdam University of Applied Sciences (see footnote 1), Amsterdam municipality has developed a system for objections to decisions about the removal of wrongly parked bicycles (for instance, because they hinder traffic, or were parked outside designated areas). A very common occurrence in Amsterdam, the self-declared 'bicycle capital of the world'. Citizens receive these decisions when they come to the pound to collect their towed bicycles and have to pay the costs of towing and of storage. Many citizens file appeal, often using arguments that cannot lead to another decision. A user-friendly digital diagnosis was designed, informing citizens about the municipality's policy and a realistic assessment of an appeal's chances of success. Extensive tests with citizens showed that they appreciated this way of being informed, avoiding unnecessary appeals. Digital support, of course, should not stop citizens from exercising their legal rights, and thus not wrongly discourage appeals. Citizens, however, appear to have a need for information that helps them decide whether filing appeal is useful. Providing realistic information is in the interest of both citizens and the authorities.

b. Customised Services

The discussion about digitisation from the citizen's perspective can be set against the broader debate in the Netherlands about transitioning towards a so-called more *responsive* government as compared to a *bureaucratic* government. A responsive government starts from the citizen's perspective and is realistic about citizens' *capacity to act*.²⁰ An important point under discussion is the wish to provide customised services in the implementation of regulations. Citizens should receive a bespoke treatment when their special circumstances require this. Some people think that digitisation and customisation are incompatible. In our opinion, however, this is a matter of good system design. If the system incorporates flexibility, digitisation can foster customisation by the authorities. In procedures, for instance, citizens could be given a choice between an informal conversation instead of an immediate formal hearing of a committee (an option in Dutch administrative appeal proceedings) or between a video hearing and a live hearing. All these options are easily realised in a digital system.

A digital system designed to provide customised services could show citizens, clearly and comprehensibly, the data underlying a proposed decision, and invite citizens to report special circumstances, if any. The system could include examples as well. This approach could be more effective than organising an expansive flow of data exchanges among authorities to determine whether or not there are special circumstances. Not only could this be technically vulnerable, it also has disadvantages in terms of privacy: Government bodies would exchange many more data than necessary for most citizens. Letting citizens themselves provide the information through a user-friendly system significantly reduces these disadvantages. In the future, developments in self-sovereign identity (with citizens, in summary, being even more in control of their digital identities and data) might offer even more exciting possibilities.

A criticism we hear sometimes is that if a digital system gives examples of special circumstances that could lead to customisation, it would encourage calculating behaviour. Citizens could phrase their applications such that they would be considered a special case. We think this is a minor risk. Several studies show that just a very small percentage of citizens tends to commit fraud intentionally.²¹ The bulk, therefore, deserves to be trusted. Moreover, applications in which special circumstances play a role, will have to be handled *outside* the digital system to appraise whether the facts presented are plausible and to ask for further evidence if necessary.

The upside of digitisation of course is that it can improve the consistency of decisions where desired. Behavioural insights teach us that professionals often appraise similar situations differently although not justified by objective facts.²² If properly designed, algorithmic digital support could counter such adverse effects. Moreover, digital systems often make continuous and systematic quality control easier than it is in analogue practice. Good system design should seek to make optimum use of the strong points of both digitisation and human decision-making.

c. Encouraging De-Escalation and Solution-Oriented Approach

²⁰ This concept has been derived, in part, from the literature on *responsive law*, a term coined by Philip Nonett and Philip Selznick. See generally P. Nonett & P. Selznick, *Law and Society in Transition: Toward Responsive Law*, New York: Harper & Row, 1978.

²¹ See e.g. report from the Dutch Ombudsman on the Dutch National Fraud Law, https://www.nationaleombudsman.nl/system/files/bijlage/Rapport%202014-159%20Geen%20fraudeur%2C%20toch%20boete%20%28printversie%29_0.pdf

²² See generally, D. Kahneman, O. Sibony & C.R. Sunstein. *Noise: A Flaw in Human Judgment*, New York: Little Brown Spark, 2021

As mentioned earlier, citizens are usually more interested in solutions than in conflicts. In practice, legal proceedings are designed such that they reinforce or even incite conflicts. To stick with the example of the Dutch administrative appeal: Traditionally, that procedure is directed at determining whether or not the decision is right or wrong. Almost naturally, that leads to two opposite positions: The party filing appeal thinks the decision is wrong, while the government body believes it is right. Both sides present arguments to support their position and empathise with that position – a risk that occurs in citizens in particular, as non-professionals. Due to the procedure's structure, solutions that are acceptable to both sides receive less attention. A simple example is the refusal of a licence for simple alterations to a home. Experience shows that minor changes in design, materials, or colour sometimes are enough to make the alterations compliant with regulations or to overcome a neighbour's objections. In that case, the decision whether or not the primary decision was right is irrelevant to the solution of the citizen's problem.

When digitising the administrative appeal, it is possible to design diagnosis and communication such that they are directed towards reaching a solution. A solid diagnosis and a demarcation of the limits of what is possible will increase citizens' awareness of the fact that filing appeal is not always the only or most likely way to resolve their problems. This could clear the way to reach a solution in other ways, for instance by discussing alternatives. Behavioural insights could contribute here. Uitelkaar.nl's system uses those insights to encourage de-escalation, which in the divorce process is of major importance, obviously. Forms of nudging,²³ too, could play a role in arriving at a good solution.

It is important to realise that citizens often have no clue what to expect of the authorities. They do not know what benefits are available or which allowances they could claim. This means that they do not know whether or not to be happy with what they get. A citizen applies for a benefit, and gets a letter saying that a certain amount will be received every month. The letter also mentions that an appeal can be filed. Why would the citizen appeal? Is the amount perhaps too low? How is one to know? Or a licence is granted, with an annex listing several conditions. Is it now possible to go forward with the plans the citizen has? Should an appeal be filed? Is there a point? If authorities provide inadequate information, are hard to reach, or take decisions routinely, discontentment is just around the corner, and could take the form of unnecessary litigation and conflicts.

Of course, communication between administrative bodies and citizens quite often proceeds smoothly. As mentioned earlier, however, the problem is rather that this communication only concerns the task executed by the body in question, while the citizen's question goes beyond that body's field of activity.

d. Integration of the Chain or of Facilities from the Citizen's Perspective; the Digital File

The way in which government bodies are organised is decisive for how citizens are treated. Every decision, every department and every law has its own entry point. In the current situation, citizens' questions must be split into just as many parts to get access to all those entry points. And within procedures, the different phases are often also split unnecessarily. A simple example is when citizens ask for a specific decision. If their application is not honoured, it is possible in the Netherlands to file appeal with the same body, followed by appeal to the court. The problem remains the same for citizens, but at different stages. As practice stands today, citizens get three different files from different government bodies. Digitisation offers the possibility to offer all different stages on one platform. The digital file created at one stage can be used at subsequent stages by making it

²³ See generally, R.H.Thaler, C.R. Sunstein. 2009, *Nudge*. New York, NY: Penguin.

accessible also to new members of staff, other departments and ultimately to the administrative court.

Obviously, this is just a simple example to realise cohesion for citizens through digitisation, which will become necessary in practice because the authorities cut up the citizen's problems in bits and pieces. A next step would be to let the needs or problems of citizens take pride of place and not a decision or the field of activity of a government department. We are happy to note that many government bodies increasingly consider thinking in *life events* an important principle:²⁴ Which rules are triggered when citizens get children, lose their jobs, move house, start their own businesses or lose loved ones? The citizen's perspective requires citizens to get support for such life events as a whole: 'the one-portal idea'. Digital systems built by collaborating government bodies from the citizen's perspective could offer life event-based systems. The practical advantage of digitisation thus structured would be that in principle authorities need not change the way in which they are organised, and that procedures could be followed step-by-step and not by means of risky, large scale ICT operations. The methods discussed in the next paragraphs could be helpful.

6. From Rules to Digital Systems

The preceding paragraphs did not go into *how* legal rules are converted into digital systems. Every legal professional will understand that one-on-one conversions are usually not possible. Rules of law often contain standards with a more or less open character that require interpretation. Sometimes this is the – in terms of legal quality - undesirable consequence of political compromise, but more often than not it is a deliberate choice to ensure that regulations remain flexible to do justice to complex realities. Digital systems work with exact instructions and there is no room for open standards. In designing and structuring systems that support the implementation of regulations, many choices must be made about which rules can and which rules cannot be digitised, which interpretations are necessary, and at which point the system should refer to professionals for further assessment. In practice, this presents several problems in the design and development process of digital systems. First, the choices made about the explanation and interpretation of legal standards are not always well-documented, in part because time-pressure can be high. For that reason, it happens regularly that the exact policy can be found only in the specifications or computer code of the system. The interpretations are then 'locked in the system'.²⁵ Should the regulations change later, it will, without the help of an external knowledge model, be a struggle to determine how the system is affected *exactly*. This has extremely adverse consequences for the *maintainability* of systems. Moreover, this is an undesirable situation because individual citizens, with or without legal aid, and the public in general should be able to check policy and rules without having to decipher computer codes.

An associated problem is that in today's government practice the conversion of rules of law to systems is often – at least partially - done by software suppliers. The over 350 municipalities in the Netherlands, for example, have responsibilities in implementing social regulations. The market for software supporting that implementation is controlled by just a couple of software suppliers. Together with government professionals, these suppliers work on designing and updating these

²⁴ The Dutch government program 'Mens centraal' (or: 'putting humans first') is a good example of this 'thinking in life events'. It uses, among other things, the insights of the WRR-report and 'no wrong door-principles' in exploring how to redesign procedures related to unemployment benefits and governmental services for unemployed citizens. See (in Dutch):

<https://www.programmamenscentraal.nl/levensgebeurtenissen/werkloos/werkwijze-en-betrokken-organisaties/er-ontstaat-ruimte-voor-echte-verbeteringen>

²⁵ See note 6.

systems, but frequently the intellectual property rights in the systems' specifications in fact vest in the suppliers. This, too, is a problem that from the viewpoint of democratic checks and transparency is nothing less than unacceptable. Moreover, this situation causes major dependency on these suppliers (*vendor lock-in*).

Remarkably, various studies about digitisation within the Dutch government show that legal professionals are usually only marginally involved in designing and structuring systems for implementing regulations. They advise indirectly about content-specific subjects, or are consulted about privacy aspects, but as a rule legal professionals are not involved from start to finish. Based on our experience, the situation in other countries will not be much different. It is our impression that legal professionals are insufficiently aware that their involvement at this stage is a prerequisite for the legal quality of government services. If the connection between steps in the digital system and regulations receives insufficient consideration, it has an adverse effect on the explainability and justification of decisions. If, however, those connections are based on a clear and external knowledge model, every step in the system can be explained, and the system will be transparent from a legal perspective. This is important from the legal quality perspective and the justification of how systems work to citizens. After all, they should not have the feeling that these systems are a black box. Citizens or their legal assistance providers who feel the need for an exact justification should be able to easily trace the underlying functioning. In our opinion, this will enhance trust in these systems. The right to know how systems work has meanwhile been anchored in Dutch case law. When a decision that is (partly) based on the outcome of a digital system is challenged by a citizen, governmental bodies should disclose all relevant assumptions, choices and interpretations that have been made in designing and developing the system, if necessary for the protection of their rights.²⁶

Thankfully, several organisations in the Netherlands increasingly recognise the importance of a good methodology and documentation of the conversion of legal rules to systems, in part owing to the above case law. Several municipalities, for instance, develop an algorithm register, explaining and accounting for how the algorithms work that are used for decision-making or enforcement.²⁷

It is no coincidence that major initiatives originate with the Tax and Customs Administration. This body is entrusted with implementing tax regulations which are complex and subject to frequent changes. The problems caused by the lack of a sound methodology have led to the methodology of *agile implementation of legislation* (in Dutch: *Wendbare wetsuitvoering*). This method focuses on the importance of traceable, transparent, and explainable conversion of regulations to digital systems.²⁸ It would go too far here to discuss this method in greater detail, but the gist is that this method systematically dissects rules of law, creating elements that can be used to formulate detailed specifications for digital systems in a natural language. The software (*agile law execution factory* or ALEF) translates those specifications into computer code. During the process, scenarios are tested on an ongoing basis to ensure that the system generates the outcomes as foreseen when designing the system. All interpretations of the required standards are carefully documented in external knowledge models. Almost all steps in this process are supported by open-source software.²⁹ This working method guarantees transparency. Other government bodies and organisations, too, are working on

²⁶ An important case in this respect was the so-called AERIUS-case; a verdict by the Administrative Jurisdiction Division of the Council of State, the country's highest general administrative court. AERIUS is a digital system to determine nitrogen depositions. It is used by governmental bodies when issuing permits in the field of environmental law, see <https://www.raadvanstate.nl/uitspraken/@107500/201600614-1-r2/>.

²⁸ Also see footnote 5.

²⁹ The ambition is to support all steps with open source software in the near future. Currently, some steps still use software that requires licences.

similar methodologies. The main advantage of those working methods is that the organisation itself designs the specifications for a digital system. This reduces the dependency on external suppliers as the intellectual property remains in the public domain. While those suppliers can still provide supportive services, they now do so based on the specifications that vest in the government body. The use of open-source software for (parts of) the process can reduce the dependency on external suppliers even further.

The project in which Amsterdam University for Applied Sciences works with six municipal and provincial authorities on digital decision support for the practice of legal departments uses the core elements of these methods to guarantee the transparency of systems and their outcomes. Testing legal scenarios on an ongoing basis is a first, important, ingredient. Next are frequent and solid user tests to ensure a good user experience. This intensive procedure is necessary to create legally sound, effective, maintainable and at the same time user-friendly systems. The involvement of other professionals (communication, ICT, policy) is essential. Ideally, systems supporting the implementation of regulations are designed and structured by a multidisciplinary team guided by the citizen's perspective in every phase of the process. In our opinion, any extra efforts made in advance will pay off later. Moreover, experience shows that the very detailed analysis of regulations will expose any inconsistencies and ambiguities and that this working method will thus – ultimately – contribute to better regulations. We are well aware that the daily practice of government bodies and the political reality of legislation processes often leave little room and time for the thorough approach that we advocate. The situation is complicated by the different execution layers within government bodies, and the rift that often exists between policy and execution. Sometimes, there is a huge gap between how regulations are designed and what works in reality. Only by recognising this gap, will there be room for real improvement. Despite this complex situation, it appears that the political climate in the Netherlands is favourable in 2022. The feasibility of execution of regulations by the different layers of government bodies are high on the agenda, also due to the childcare benefits scandal. We believe attention to the citizen's perspective and the elements set out in this paragraph are indispensable in realising more workable regulations. Politics and government bodies together will have to find a way to make this working method the standard.

7. Conclusion

This chapter highlighted several aspects of digitisation from the citizen's perspective. In the current situation, the government's perspective dominates the execution of regulations and the accompanying digital systems. This perspective views the reality of citizens through the lens of legal regulations. The citizen's perspective is different. Citizens' thinking does not start from legal regulations, but from actual events that happen to them. Authorities that design digital systems from the citizen's perspective put themselves in the citizen's position and thus choose an essentially different, more humane, starting point.

Well-designed digital systems have major advantages, both for citizens and for the authorities. They can increase the citizens' *capacity to act* and allows employment of the always limited personnel capacity of the government in places and at times where it is most valuable and most needed. If executed on a large scale, the standardisation of regulations is inevitable and effective. However, there are always special cases that could require customisation. If systems are well-designed, customisation and digitisation need not be at odds. Digital systems can feature several ways to filter out special cases in time, for instance by inviting citizens to actively report when special circumstances could apply to them. Lastly, digitisation from the citizen's perspective could make sure that citizens have to go to just one portal and avoid unnecessary division of their files.

The last key element is that in designing and structuring systems a traceable and transparent connection should be made to the underlying regulations through external knowledge models. Current government practice in the Netherlands leaves a lot to be desired in this respect, as is the case in many other countries. It is a huge challenge to transition to citizen-friendly digital systems. Although in our view some main elements are undeniable, government practice is too diverse and too complex to allow for an all-encompassing blueprint for citizen-friendly digitisation. A better alternative appears to be phasing-in the citizen's perspective and sound digitisation in a way that complements and ties in with current government processes. We are convinced that we will stand a chance of success only if numerous legal government professionals and policy makers will seriously look into the importance of the citizen's perspective, the possibilities offered by technology, and the conditions for the sound digitisation of government services that citizens can trust.