Determination of Public Goals in Times of Volatility and Complexity

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ABSTRACT

Purpose: The purpose of this text is to critically analyse the traditional approach to the formulation and application of legal rules, arguing that they are outdated and insufficient for addressing the complexities and dynamics of modern society and technology.

Design/Methodology/Approach: Employing a qualitative research methodology, the paper adopts a case study approach, focused mainly on the practices of the legislature in determining public goals. The analysis identifies themes and patterns related to different practices regarding the determination of public goals and their impact on the legislature. The findings are discussed in relation to the theoretical framework established both in the literature review and this paper. The paper concludes with a summary of the findings, practical implications, and suggestions for future research.

Findings and Practical Implications: Although technology nowadays plays a central role in human life, legislative public goals are still determined statically, reflecting a traditional Newtonian mechanistic perspective grounded in the principle of causality. Looking ahead, the paper speculates on potential scenarios. It suggests that the balance between nature, technology, law, and humanity requires careful management to ensure a harmonious but flexible co-existence. In the realm of complex legal issues, certainly can, to some extent, be maintained through an array of innovative methods. These include results- and procedure-oriented approaches to interactions between individuals and collectives, a legal system informed by feedback mechanisms and thresholds, the use of collective intelligence, the anticipation of adverse scenarios, and the implementation of adaptable norms. Such methodologies are intrinsically better equipped to navigate the unpredictability and complexity of modern legal challenges than traditional legalistic frameworks.

Originality: The paper integrates insights from various disciplines, including law, system theory, and technology studies. This interdisciplinary approach offers a more comprehensive understanding of the intricate interplay between nature, technology, and law, a perspective often neglected

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63

Mirko Pečarič

in more narrowly focused studies. The originality of the paper lies in challenging existing forms of regulation and proposing new regulatory approaches grounded in the evolving nature of facts and associated rights and obligations of individuals and groups.

Keywords: complexity, flexibility, legislation, public goals, collective wisdom, negative scenarios, adaptable norms

> *All you need are these: certainty of judgement in the present moment; action for the common good in the present moment; and an attitude of gratitude in the present moment for anything that comes your way.*
> – Marcus Aurelius, Meditations, 9.6

1   Introduction

Public goals as reflectors of the aspirations and needs of society play a crucial role in legislation. Determining public goals is a crucial aspect, as it sets the direction and priorities for the government and its citizens. The process of determining these goals should be inclusive, transparent, and reflective of the needs and aspirations of people. An inclusive approach ensures that all segments of society have a say in shaping public goals. When setting these goals, it is crucial to consider common factors such as economic development, social justice, environmental sustainability, and healthcare. By effectively addressing these issues, governments can create a better future for their citizens. This narrative could go on, but it is mostly in theory; in practice, laws are closer to the twisted and paraphrased Tolstoy Anna Karenina saying: 'all bad laws are alike; each good law is good in its own way'. If we agree with Plato that the beginning is the most important part of the work, then the development/determination of public goals is of such importance for the responsive, efficient, and effective primary legislation. Legislation is such when goals are achieved. Despite of this knowledge, many times goals are still not achieved. This often occurs not because of the legislator's incompetence, but because of the matter of things per se.

Public goals depend on different contexts and priorities, but generally include promoting justice, protecting individual rights, ensuring social welfare, and advancing economic development. Despite their importance, such goals are still very broad in scope, general, and all-encompassing. Already Aristotle knew (it is now the common truth) that legislators are unable to anticipate every possible situation or scenario in which legislation may be applicable[1]

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1   When law speaks universally, and a particular case arises as an exception to the universal rule, then it is right … to correct the omission … this is the very nature of what is equitable – a correction of law, where it is deficient on account of its universality. This is also the reason why not everything is regulated by law: about some things it is impossible to legislate, so that a

(Romans knew this in the saying *lex non curat de minimis*, i.e., the statute does not concern little things, but the latter often gives the "flavour" of goals). The primary legislation is hence many times broad in scope; due to these practical limitations, it is, on the other hand, per se, inherently incomplete. This gap can be further addressed in secondary legislation, adjudication, material acts, civil contracts, and other regulatory techniques, but equity, as outcome-to-input ratio, is rarely mathematically equal to the referent one. The Covid-19 epidemic is the example of this. Notwithstanding the similarity of actions taken in legal acts between countries (higher or lower on the rule-of-law scale), the epidemic spreads in a wavelike manner. This may be an indication that its nature of movement was outside of the legal scope. Complex situations as such do not react in the usual form of logical causation (also present in the binary "if → then" nature of the legal norm). Covid has demonstrated this repeatedly; similarly, knowledge is (and can be) revealed to us in waves. That man cannot know everything was already known to the Stoics, but without as much as possible an experimentally verified objective situation, on which legal drafts can be made, this can be even enhanced. Legislators are here faced with the Thomas theorem ("if men highly subjective situations define as real, they are real in their consequences") (Thomas and Thomas, 1928); this can be the older version of the fundamental attribution error, as a 'general tendency to overestimate the importance of personal or dispositional factors relative to environmental influences' (FAE) (Ross, 1977, p. 184). The unwanted consequences and side effects are *sine qua non* of such a stance and thus also of a situation not being determined with the recognised scientific research methods. The following sections of this paper will focus on some methods and approaches that could make the legislator's job easier in writing laws. They explore the process of determining public goals in legislation, examine various means and approaches employed by legislators, factors that influence goal determination, and challenges faced during this process. The paper delves into the complexities of legislation, public goals, and decision-making processes within societies and institutions. Key themes include public goals in legislation, evidence-based legislative decision making, result- and procedure-based approaches, collective wisdom and decision making, challenges in regulation and group engagement, and social identity. The next section is focused on the principles of stoicism that align with modern concepts in cybernetics, systems theory, and complexity; the third chapter deals with various adaptable means to determine public goals, while the conclusion follows in the fourth section.

2   The apparent stability of law in the flexible nature

The areas of great interest to the Stoics were the elements of virtue, morality, emotions, self-awareness, fortitude, right action, problem solving, acceptance, mental clarity, pragmatism, unbiased thought, and duty. All of these elements can be found also in the law, so it is valuable to see how Stoics framed their work: they did this around three critical disciplines: 'the discipline of Percep-

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special decree is required. For when the object is indeterminate, so also is the rule ... so the special decree adapts to fit the circumstances (Aristotle, 2004, p. 100).

tion (how we perceive the world around us), the discipline of Action (the decisions and actions we take and to what end), the discipline of Will (how we deal with things that cannot be changed, attain clear and convincing judgement)' (Holiday and Hanselman, 2016, p. 4). Stoics' rules of thumb, that is, a) the control of personal perceptions, b) proper direction of actions, and c) willingness to accept what is outside our control, similarly express what has later become the essence of (a) cybernetics and/or control, (b) system theory, and (c) complexity. The first is the science of navigating, direction-finding (steering), regulation and control (of systems), the second is focused on interconnections among parts, while the third emerges out of various connections among parts.

These three areas can be used in the legal field that urgently needs different approaches. The nomotehnics of legislation/regulation in most cases still resemble the German *Allgemeines Landrecht* ("General State Law") of 1792, whose aim was to create a unified set of laws that should eliminate possible manipulations by different interpretation. This Act, with more that 17,000 articles (sic), is the clear example of "complexity in full action" and contradictory interpretations blossomed. Nowadays it is known that an approach to complex matters cannot be in the detailed enumeration and definition of things, as the latter always combined with others emerge as new ones and cannot be fully comprehended or completely administered at start. There will always be something 'out there' or 'outside' the frame. Due to numerous factors and influences, and their hypercomplex interactions, social systems exhibit the so-called spontaneous, dynamic (self-restructuring) order, known as the black box. Society can therefore be managed better indirectly through different inputs to desired outputs, feedback, and resulting patterns,[2] provided that the change of view is present: events per se do not change people, but the latter's point of view changes, that is recognise the former as such. This could be the stance of Stoicism, as it is also the essence of Perceptual Control Theory (PCT): 'the basic principle of control is control of perception, not action' (Powers, 2010, p. 129). Behaviour is the process by which we act on the world to control perceptions that matter to us (this is the so-called perceptual control, where the latter produces repeatable consequences by various actions). A similar stance is also present in the so-called socionomic insight, where social mood trends precede social action and not contrary (Prechter, 1999). This inverted causality stands at least in cases in which we are interested in something (e.g. needs, interests, motivations, events) to happen or to be changed. Similar to this is the measure-and-react approach rather than traditional strategic planning: 'planners should rely less on making predictions about long-term strategic trends and more on reacting quickly to changes on the ground' (Watts, 2011, p. 188).

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2   Healthy growth is S-shaped growth. Any other kind of growth is unhealthy (Malik, 2016, p. 229). This sinusoid growth and decline resembles to Kondratieff cycle. This cycle lasts for 55 years and can be related to the mass-psychological, social mood, in research known as socionomics (Prechter, 1999) according to which peoples' mood and/or actions trigger external events and not contrary. In this line of thought people perceive especially things they intent to control. Intention frames what will be brought into experience. Causation does not work in the social sciences as it does in the natural sciences.

Stoicism was not interested in the high abstract words of Platonism and/or German Idealism; neither the law nor the law can cope with them, as the legal principles and other rules have in mind a real context of general or individual legal rules. As said, perceptions, actions, and willingness (to accept what can/not be done) should not be only as sine qua non present in the law, but they reveal a deeper denominator: the discipline of will acknowledges that some things are not known to us, are insufficiently or wrongly assessed at a time of enactment, in later phases change or connected, combined with others emerge as new/different things. Such a finding is known for centuries, even in religion: willingness to accept the fact that everything is impermanent (*anicca*) is present in Buddhism (as in other major Indian religions); there is no permanent self or soul in living beings (*anattā*). The misperception (*avijjā*) that anything is permanent leads to clinging (to otherwise impermanent states or things), which leads to dukkha (incapable of satisfying and hence painful). The paradox of impermanence (also in the sense of the absence of causation) therefore constantly evades the present, while at the same time representing a two-way street of the past and the future. It is a synonym of meaning as a fluid, a moving boundary between the expressive proposition and the thing (state of affairs) in its being (Deleuze, 1998). For Foucault, it is precisely the property of power as prescription that is expressive: 'power acts by making a prescription [...] Power speaks, and this is the prescription. The pure form of power will be found in the function of the legislator' (Foucault, 1978, p. 83). For Deleuze, sense manifests itself as 'a process of infinite reference back to a presupposition' (Deleuze, 1998, p. 37). Such a process of constant return to a certain, again prior, rule is also mentioned by Kant in relation to the power of reasoning.[3] If the latter has solved the problem by means of a comparison (of things, events, persons, etc.), by means of which an astute or precise person perceives differences, Foucault further tells us that these emergent differences, which indicate transformations of states, are based on observable signs. Foucault also confined himself to describing transformations rather than causes: 'no similarities are available without signatures. The world of similarities can only be a world of signs' (Foucault, 2002, p. 29). This does not lead us to causation, but to the relation between sense, prescription, reasoning, and measuring power: what is sensible is prescriptive in law (which is ascertainable through signs), and conversely, what is discerned is knowable through differences in measured signs (which are carried by things or processes). This philosophical understanding has found its basis also in the natural sciences: Carnap in the Philosophical Foundation of Physics claims

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3   In the Critique of Pure Reason, Kant says that reason as 'ordinary logic contains no prescriptions for reasoning power [the subsumption of facts under a legal norm, i.e. the judgment of whether the observed facts of a concrete life event fit the description of an abstract situation given in a legal norm], nor can it contain them. For since it abstracts from itself all the contents of cognition, it is left with nothing but the task of analytically dismantling the bare form of cognition in terms of concepts, judgments, and conclusions, and thus formulating the formal rules of all rational use. If she wanted to show how we are to subsume things under these rules, i.e. to distinguish whether something stands under them or not, she could not do so again except according to a rule. While reason can be taught and equipped with rules, the reasoning power is a special talent that cannot be taught but only trained. Therefore, the power of reasoning is also that specific so-called innate acumen, the lack of which no school can compensate for' (Kant, 2001, p. 162).

that 'causality is not a thing that causes an event, but a process … [in which] some processes or events cause other processes or events' (Carnap, 1966, p. 190). The flexible, changeable, and complex nature is the opposite of a stable, immutable conception of law in terms of legal certainty and thus also of such public goals. The idea that causality is not a static, unchanging force, but rather a dynamic interplay of events and processes is also echoed in the legal framework. In law, this perspective challenges the traditional notion of fixed and immutable rules. Instead, it suggests that legal principles and their applications are fluid and adapt to the changing contexts and complexities of human society. This fluidity in understanding causality and law aligns with the postmodernist critique of grand narratives and fixed truths. In the legal context, it implies that laws are not just prescriptive texts, but living documents that evolve with societal changes. This perspective is crucial to understanding the application of law in diverse contexts, where different cultural, social, and economic factors play a significant role. Moreover, this approach has implications for public policy and governance: if laws and their applications are seen as dynamic, then public goals and policies must also be flexible and adaptable. This challenges policymakers to be more responsive to the changing needs and complexities of society, rather than adhering rigidly to predefined objectives. Therefore, the next section aims to explore the methodologies and frameworks through which public goals are identified, evaluated, and pursued in an ever-changing societal context.

3 Means to determine public goals

There are several approaches that legislators can employ to determine public goals in legislation: among the means to determine public goals are public hearings and forums, surveys and polls, stakeholder meetings, constituent feedback, advisory committees, town hall meetings, focus groups, community outreach programmes, social media, and online platforms, collaboration with research institutions, feedback from local governments, public petitions, media monitoring, and the engagement of nongovernmental organisations. By using combinations of these means, legislators can gain a comprehensive understanding of public goals and ensure their legislative actions align with the needs and desires of their constituents. Balancing these factors is in theory crucial for effective decision-making, but in practice they are used not so often. Despite the multitude of possible means, balancing itself is just a notion that needs further understanding and implementation of means: conflicting interests among different groups or stakeholders can create complexities when trying to find common ground or compromise between divergent perspectives. Furthermore, ethical considerations arise when determining public goals, since it is essential to uphold principles such as fairness, justice, transparency, and accountability throughout the legislative process.

Most importantly, most draft laws are still drafted in the offices of different ministries, by different civil servants. A pragmatic view that considers actual practice, time and money spent on writing laws, can therefore focus primar-

ily on public officials' practices of using means to draft legal acts. Civil servants – regardless of the mentioned means as input (as "informal legislators") – should use the evidence-based approach that relies on empirical data and research findings to inform the legislative decision-making process. But still – what can be understood as evidence and why? Who provided the information, how it was framed and processed? There are no definitive answers in this area. If this were not the case, all major problems of society would have been solved long ago. Not only are they not, but new ones also emerge all the time. Thus, further sections point to additional perspectives worth considering when drafting public objectives.

The intricate balance of numerous factors is, in theory, paramount for efficacious decision-making; however, the practical application of this balance frequently presents challenges. Although a diverse array of methods for achieving this equilibrium exists, the concept of balance itself demands further operationalisation; moreover, most legislative proposals or bills continue to be formulated within the confines of various ministerial departments by distinct bodies of civil servants. A pragmatic perspective, cognizant of the real-world practices, as well as the temporal and financial resources expended in the legislative drafting process, would suggest a primary focus on public officials and their utilisation of methods when crafting legal statutes. Indeed, civil servants, often referred to as "informal legislators," should employ an evidence-based methodology predicated on empirical data and scholarly research to guide the legislative decision-making framework. Yet, this raises the question: what constitutes evidence, and why? From what did the information originate, how was it presented, and how has it been subsequently interpreted? Definitive responses in this domain remain elusive. If this was not the case, society's most pressing issues would have been resolved long ago.

Not only do these issues persist, but new dilemmas also continue to surface with regularity. Therefore, the following sections will suggest additional points of view that warrant consideration when delineating public objectives. These perspectives can illuminate the complexities inherent in legislative drafting and offer insights into how evidence can be more effectively integrated into the process, ensuring that the resultant laws are not only theoretically sound but also practically viable and responsive to the evolving needs of society.

3.1 The Results- and Procedure-Based Approach of an Individual Towards a Group

One of such perspectives points to the division between general and specific rules based on the difference between the information we have on situations and the division between individuals and groups. The social dilemma occurs in the latter demarcation, when short-term self-interest becomes widespread and negatively affects the well-being of a group. This inference gained its moment already in Greek democracy, as joint, participatory codetermination of objectives or influence on their content increases the likelihood of

their achievement and thus the success of the management of the group;[4] on the other hand, a broad consensus per se cannot be per se or automatically aligned with the objective situation. Sometimes an individual may (in the sense of Galileo *e pour si muove*) defy the (mis)beliefs of the broad masses; the decision-making of the broad masses on a given issue could be democratic, but not necessarily liberal, objectively correct – the way information is gathered and processed is more decisive. Based on two elements of an individual and a group, there are four result-based combinations that emerge when individuals decide on the extent and the way on which they will pledge to the group. Along the result-based approach (the upper four combinations in the table below), there is the procedure-based approach (the lower four combinations in the table below) because a procedure by which we arrive at results is also important), the importance is based more on a just procedure, because results are here (more or yet) unknown. This approach can be in the same line of thought – between justice as a personal, individual virtue/attitude, and fairness as the collective, group value – presented with four vertical combinations (a, a1, c, and c1; and b, b1, d, and d1):

APPROACH	Individual	Group
Result-based	a) a self-egoistic interest (regardless of the public) (individualism);	b) a self-fair interest (an individual interest according to what is justifiable to it, or a subjective opinion vis-à-vis opinions of others) (libertarianism);
	a.1) individual justice (a procedure that is "good" for my result) (personalism);	b.1) relative to other justice (people evaluate the quality of their outcomes by comparing them with the outcomes of others) (comparative equity);
Procedure-based	c) a public-egoistic interest (what is beneficial for the public, regardless of the individual interest) (collectivism);	d) a public-fair interest (public interest according to what is justifiable to it) (communitarianism);
	c.1) procedural justice, in which people are concerned with the equal quality of process for everyone (due process, rule of law);	d.1) distributive justice as an outcome received relative to those judged to be equitable to those who judge (equity).

Source: The result- and procedure-based approach of an individual towards a group

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4 'For the many, who are not as individuals excellent men, nevertheless can, when they have come together, be better than the few best people, not individually but collectively, just as feasts to which many contribute are better than feasts provided at one person's expense. For being many, each of them can have some part of virtue and practical wisdom, and when they come together, the multitude is just like a single human being, with many feet, hands, and senses, and so too for their character traits and wisdom. That is why the many are better judges of works of music and of the poets. For one of them judges one part, another, and all of them the whole thing' (Book III, 1281a41-b10, Aristotle, 1998).

The relationship between a process and a result is explained in the fairness heuristic theory[5] with the (non-)availability of information: when the latter on outcomes is not available, procedural justice prevails,[6] and contrary, in the presence of information on outcomes, other (more substantive) versions of justice gain more importance: '[w]hen people do not have information on the outcomes of others, they use procedural fairness as heuristic substitutes to assess how to react to their outcome […] but people rely less on procedure information when they are informed about the outcome of another person' (Van den Bos et al., 2000, p. 57). Based on this 'the information that comes first exerts a stronger influence on judgement [as it sets the stage for the interpretation on justice], then information that comes second' (Van den Bos et al., 2000, p. 59). Not only the information, but the timing, habits, norms, and questions i.e. the frame[7] of a decision, are crucial for decision-making. Along the (non)specificity of information, the impact of groups on individuals is frequently undervalued. It may be that (from the outcome-based view) 'it is usually easier to change individuals formed into a group than to change any one of them separately' (Lewin, 1951, p. 228), but from the procedural point of view, the way in which these opinions are processed is essential, bringing people together without any of them being felt that have been overlooked. A reaction of people to (individual) justice and (collective) fairness depends more on circumstances and/or a context of the case than on the abstract notions, whether on the distributive or procedural ones. In the presence of material information, the need for the democratic process is reduced, and vice versa. When more material information is available (the result), the need for more abstract and general legal rules increases; in the absence of them, information about the process is more appropriate, and along with the need for more specific, individual adjudication.[8]

What counts is what a man can do when information is available and how he acts in the absence of it. Based on the distinction mentioned above between material and process options, in the case of information scarcity, the combinations c, d, c1, and d1 could be taken (more) into account, and vice versa: when information is available, when a factual situation is reasonably clear, the combinations a, b, a1, and b1 come (more) into the fore (in both cases, the combination depends on collectivist or more individualistic values or views

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5   To understand what people judge to be fair we have to carefully assess to what information they are reacting. To assess what is fair people react to the situation at hand. Less relevant but available information may be used as a heuristic substitute for more relevant yet missing information (Bos, 2001).

6   Justice judgments are [in the mentioned line of thought understandably] more sensitive to early fairness-relevant information than to later fairness-relevant information and that this primacy effect is more evident when group identification is higher (Lind et al., 2001).

7   The framing effect is when people's responses vary based on whether something is depicted as positive or negative. Our choices are swayed by the way the information is delivered, not necessarily by the actual content, or "questions affect answers" (Plous, 1993).

8   If, for example, pensions are adjusted for inflation, this information is relevant generally and equally for all, and applies as such to all, without the need for individual pension increase procedures. Conversely, when it is necessary to establish eligibility conditions for a pension, an individual procedure should be introduced to establish such conditions for each individual person. When criminal offences are defined in the Criminal Code, it is known in advance what is prohibited, contrary to the values of society, whereas it is necessary to establish during the criminal proceedings whether the alleged suspect has committed the offence of which he is accused.

of society). In the group engagement model procedures are important because they shape people's social identity within groups, and social identity in turn influences attitudes, values, and behaviours (T. R. Tyler and Blader, 2003). These three personal stances have a significant effect on cooperative behaviour, separate from the influence of reward and punishment systems: 'attitudes and values are the dominant motivations shaping discretionary behavior, with deference to social rules [accepting authority or following rules based on one's own volition] primarily shaped by values and extra-role behavior [performing nonrequired tasks] primarily influenced by attitudes' (T. Tyler and Blader, 2013, p. 191). If we try to link this model with fairness heuristic theory, the attitudes and values are more important when information (on results) is not available (the c, d, c1 and d1 combinations), while the reward and punishment come more to the fore when information is available (the a, b, a1 and b1 combinations).

For the legislator, it is thus preferable to apply general regulation when there is sufficient information on the actual situation and, consequently, the desired objectives (otherwise, such general rules are more likely to be doomed to failure in advance); on this basis, it is easier to determine the effective means (starting from combinations a, b, a1 and b1) to achieve the objectives. As fact finding can be quite difficult and time-consuming at the outset, and (at a given point in time) financially costly, it may be decided to adopt more process-based legislation (e.g. trade union bargaining, disaster damage inventory, application for certain rights), where (starting from combinations c, d, c1) and d1), the costs of conducting individual proceedings over an extended period of time, during which the facts are established, on the basis of procedural rules that are clear in advance and that are the same for all, should also be taken into account as far as possible. As the common denominator is needed to process different numbers, the same approach can be applied to general legal rules: to bring people on the same level of awareness on the importance on some matter, common grounds should be established. This is even more important when mandatory rules are imposed. If the outcome is unknown, emphasis should be placed on values, attitudes, fundamental legal principles, human rights, equal procedural rules, and if it is known, emphasis should be placed on equal criteria, means, and proportionality.

3.2   Systemic Law

The above-mentioned religious, philosophical, and even scientific views on dynamism and/or variability came forcefully to the fore in the systems theory. With an emphasis on processes, Bertalanffy as the founder of systems theory, believed that systems are governed by the dynamic interaction of their parts (Bertalanffy, 1968). Numerous links between the individual parts – which can be calculated using the equation $n(n-1)$ (Beer, 1959) – do not allow classical causality or causal relationships to be established, but exhibit the main element of complexity,[9] which can be partially administrated with sensors and

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9   Complexity can be shown using the very simple case of a statute that would have only 4 measures for achieving a goal. The number of their states is 12, and the number of connections

non/acceptable thresholds that trigger the preestablished actionable scenarios. Contrary to or without them, false hopes lead to disappointments, while the latter can be the fundamental reason to communicate expectations also in a normative legal style (Luhmann, 2004). Everything is connected differently or similar on different levels. Causality can sometimes be ex-post proven when our focus/perspectives, criteria, relations are determined, when data are gathered and statistically processed. Ex-ante can this be only presumed, as uncertainty and complexity come to the fore. In the law dealing with human rights and obligations, it is logical to have a say about them also the people who are subsumed by the law, but this 'logic' and even constitutional right, in most cases fails in practice. 'When entire systems keep getting more and more inefficient, clear signals are exhibited. These include more and more input being required to obtain less and less output, former liberties leading to excesses, and previously decreased regulation returning as exponential degrees of bureaucracy' (Malik, 2011, p. 24)and expert on Management in Europe (.... The increasing public resources spent on bureaucracy, a larger number of enacted regulations, and growing violations of human rights are signals not only that something must be done (within the existing systems), but that it should be done differently (with the new ones).

Notwithstanding the greatest democratic gains of the 18th and/or 19th centuries, most regulations are still enacted without the public participation.[10] As the design of any kind of a system should be focused on its function, the same stands for various legal (sub)functions expressed in the main one – its performance. A legal system based on freedom exhibits the very essence of a system: operating autonomously as much as possible in various subparts, and hierarchically at the same time where parts of different levels need "communication", cooperation, and coordination, where the elements 'common, general, free, open, public' are present in various types of (sub)actions grouped to achieve results. This combination of systemic 'auto-archy' (autonomy-hierarchy) and/or "auto-rules [gr. *nomos* – rules] based on principles" (fr. *archie* - principle) exhibits the main legal elements of law, ie, how rules should be understood, work, and be controlled within the framework of principles (this semantic combination of words was also assembled without causality, but nevertheless has meaning).

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between the means is 6; the input variety () enables 16 possibilities (4^2=16), while the output variety () gives 2^{64} or 18446744073709551616 possibilities. By solving 4 problems, a statute itself produces 12 new, unsolved ones. Similar complexity applies to e.g. chess or the alphabet; the latter can be used to create poetry, sonatas, novels, etc. out of 25 letters, the contents of which cannot be based on causation (for 25 letters it is 8.8817841970e+34 combinations). The same applies to all things that are yet to happen in the future, and which are not based on naturalistic, mechanical, Newtonian laws of motion.

10 For Malik participation in management is not based on equality (as it is in the case of democracy), but on the principles of efficacious functioning, effective communication, right thinking and action. On the other hand, democratic equality means only the equal possilitiy to participate. If this is assured, the same benefits can occur as in management: 'participation is indispensable to functioning organisations because it interconnects knowledge, amplifies intelligence, enables better decisions (a viable consensus can be reached by an open discussion of dissenting opinions), meta-information (the transmission of knowledge in the way that everyone knows that everyone knows everything necessary to complete a task in a particular situation an) and effective learning' (Malik, 2020, pp. 86–89).

People as the main "parts" of legal systems could form such relations (between parts) that could be effective and efficient at the same time. Public participation understood in ancient democratic Greek meaning, where people were physically gathered in public forums, is a classical ideal, but practical experiments confirm that this kind of gathering cannot provide objective meaning; many times due to emotional, cognitive, and other elements lead to negative results in the form of violent mobs - which were the subject of Le Bon's research on crowd psychology – or extreme opinions (amplified by other participants, usually loud, or otherwise outstanding participants) (Sunstein, 2011). Here, a common saying can be placed "(some) garbage in, (more) garbage out". When considering a factual state of affairs, this kind of public gathering and decision making cannot give a real statistical average (but only binary yes-no decisions of majoritarian decision making - the same holds for all decision-making forums); here often a 'losing' side has almost the same number of votes as the 'winning' one (e.g. 51% vs 49%), although the same 'objective' decision is then 100% valid based only on <50% of subjective votes. This could/should be changed – it is not about rigid, linear votes as results; faced with the uncertain future, it is about the dynamic, changeable, and adaptable parts as asymmetrical relations. In the previous centuries formed knowledge-based successful decision-making techniques cannot cope with the complexity of the 21st century.

When taken to extremes or used in different contexts even so far effective systems will fail (past successes generate their own malfunctions). It is not about only changing some inefficient techniques or methods ("do something differently with the same essence" and/or "the more efficient you are at doing the wrong thing, the worse you become[11]"), but to be effective and efficient at the same time on different (right) goals and on different (right) methods. Transferred into the legal language, this means that the (old) present general decision-making systems cannot be neither effective (as goals are not democratically closer to the real state of affairs, because public participation is still used in the classical way of votes or not at all) nor efficient (as methods or subjective votes are not independent and statistical elaborated, averaged, or used with median), as it simply does not incorporate enough variety into its decision-making systems. With the help of numerous different people with various perspectives there is no need for a host of expert opinions or is there any kind of 'higher' (hierarchical) or a better (based on 'merit') opinion maker? Everyone should have the same chances of participating. All these elements that can aggregate knowledge of numerous people and at the same time express the efficiency of small teams are present in the communication method, where synergy and integration (syntegration) are expressed in collective wisdom.

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11 There is a difference between doing things right (efficiency) and doing the right things (effectiveness) (Drucker, 2002): it is more essential to do right things (this can also be done passively - do no harm) than doing right the wrong things, because '[t]he more efficient you are at doing the wrong thing, the wronger you become. It is much better to do the right thing wronger than the wrong thing righter. If you do the right thing wrong and correct it, you get better' (Ackoff, 2015)as Leslie Gelb observed in his article "Fresh Faces" (The New York Times, December 8, 1991.

3.3   Collective Wisdom

Decisions should be taken outside of social identity, in the sense that a decision should be taken by everyone alone, yet in the view of a whole collective. The usual majority decision-making could be complemented with the practices of collective wisdom, in which decisions are first processed individually and independently of others, and then statistically processed as a whole. Such decision-making is important also for implementation, where the individual is often not just an individual, but reacts toward a rule/decision as a member of a wider group. Democracy is not only a political instrument that legitimises the behaviour of the people's representatives, or a fundamental element in bringing people together peacefully to achieve common goals, but also an element of direct decision-making or participation in the management of public affairs (in the sense of new data and its transformation into grounds for legal change). The community, as the "wisdom of the crowds", can, through appropriate procedures and under certain conditions, be intelligent, able to distinguish between objectives (Briskin et al., 2009; Landemore and Elster, 2012; Pečarič, 2016; Surowiecki, 2005). What matters for the assessment of the situation as a basis for collective action is not so much what the individual (thinks), but what the people as a group think about an issue. The latter does not exist as such, since it only emerges with the existence of a system (communication) that captures a set of disparate data, connects them through a common denominator, and offers a solution by comparing the data and looking for their common patterns.

The concept that groups of individuals can generate predictions that are statistically more accurate than those made by single experts has been scientifically supported (Dawes, 1979; Grove and Meehl, 1996; Meehl, 2013). This idea, often referred to as crowdsourcing (Galton, 1907; Grove and Meehl, 1996; Meehl, 2013; Page, 2008) is increasingly feasible due to the advancements in information and communication technology. Certainly, a recognised expert will tend to provide better facts, predictions, or advice than a random individual, when a field in which the expert operates is not flexible, changeable. But when a few dozen random people are put together on the right kind of task, the facts, predictions, and advice that are then aggregated are better than what experts could produce alone. It appears that the crucial factor is that within a blend of correct and incorrect responses, the incorrect responses usually neutralise each other, allowing the correct answers to prevail (O'Reilly, 2010). Under appropriate conditions, the collective intelligence of a group can surpass that of its most intellectually gifted members. It is not a prerequisite for a group to be composed of individuals with exceptional intelligence to exhibit collective intelligence. The capacity of a group to make a prudent decision is not necessarily impeded by the presence of members who may lack significant knowledge or rationality (Surowiecki, 2005). According to Surowiecki, collective intelligence must overcome the challenges inherent in cognitive processes, coordination, and cooperative efforts. Moreover, it is essential to foster an environment characterised by diversity and autonomy, alongside a distinct form of decentralisation, to ensure that the collective

wisdom of the group is harnessed effectively. Diversity is ensured when we do not try to reach a consensus, but collect the independent and impartial conclusions or estimates of all the people and calculate the average or the medium of the group's opinion. This number represents collective wisdom. The focus lies on the understanding possessed by individuals in society who, in collaboration with official entities, display recurring behaviours. The reason for this is in the fact that in a mixture of correct and wrong answers, the latter are mutually exclusive (with the aggregation of data, and then through their statistical mean), which remains in effect only correct ones. The World Wide Web is no longer just a simple link that connects one to another. There are many of them who have the same or even greater amount of information and greater knowledge about individual things. Collective wisdom addresses both the result-based and process-based approach at their group level of decisions (b, b1, d, and d1). The study of collective social conduct within political and institutional realms should prioritise the consideration of the myriad preferences that emerge autonomously and precede individual decisions, rather than focussing solely on the rational choices of individuals.

3.4   Negative Scenarios

Confirmation bias, characterised by a focused and intentional pursuit of only evidence that supports one's own beliefs, stands as a primary barrier to effective regulation. This tendency is evident even in cataphatic theology, which seeks to understand God through the use of affirmative descriptions (Oxford, 2016). Alternative intuitive strategies, such as heuristics, informed speculation, and practical reasoning, are often used to generate acceptable outcomes. Conversely, the prohibitive method is epitomised in ancient edicts, notably the biblical Decalogue, and encapsulated in the foundational legal maxim of *neminem laedere*, which translates to 'injure no one'. In the realm of medicine, this principle is revered as *primum non nocere*, which means 'firstly, to do no harm'. This apophatic or negation-centred tactic also presents a resolution in Wason's renowned experimental puzzle known as the four-card problem, a challenge within the scope of deductive reasoning studies (Wason, 1968). Interestingly, it is rare for regulatory bodies or officials to employ an exclusionary system as an undesirable element that is incompatible with a specific grouping.

The essence of this perspective is illustrated in Ellenberg's narrative about 'the missing bullet holes story':[12] the only way to identify the weakest point is by looking for the absences, like searching for missing bullets. The principle

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12 The primary concern in safeguarding American aircraft during the Second World War revolved around the reinforcement of the most susceptible regions. The ideal level of armour was to be determined by striking a balance between averting the downing of aircraft by opposing combatants and avoiding an increase in weight that would compromise the aircraft's agility and fuel economy. It was the military's logical intention to augment the armour in areas where perforations were most concentrated. However, Abraham Wald, a member of a secretive statistical analysis team, posed a critical question: 'Where are the absent perforations?' The absent bullet holes corresponded to aircraft that did not return. The observation that returning aircraft exhibited fewer impacts to the engine suggested that aircraft sustaining engine hits were lost in combat. Consequently, the areas devoid of any perforations were precisely those that required reinforcement with armour (Ellenberg, 2014).

was exemplified by the renowned Michelangelo, the eminent artisan responsible for the creation of the esteemed David statue, upon being queried by the pontiff to divulge the essence of his exceptional aptitude. Michelangelo articulated his response by stating, 'It's simple. I just remove everything that is not David' (Taleb, 2014). The idea has been acknowledged in the tradition of apophatic theology, also known as negative theology, which defines the divine by negation, focussing on what God is not (from the Greek *'apophanai'*, meaning 'to deny') rather than attempting to assertively describe God's essence (Theopedia, 2016). The apophatic method emphasises understanding through what cannot be explicitly expressed or indirectly referenced. In Latin, this approach is known as via negativa, or a negative path. It involves defining something by stating what it is not, particularly by rejecting the idea that any finite concept or attribute can be equated with or applied to God or the ultimate reality (Oxford Dictionaries, 2017). The negative path, or the concept of development through reduction instead of accumulation, can be particularly beneficial for regulators when dealing with uncommon, non-standard, or fluctuating conditions in their surroundings. The approach is to focus on vulnerability instead of trying to forecast and compute future possibilities, acknowledging that vulnerability and resilience exist on a continuum with diverse levels. The challenge is to construct a diagram of exposures (Taleb, 2014). In the process of regulation, regulators should be aware of the Conant-Ashby theorem; it states that any effective regulator of a system must have a comprehensive understanding or be a model of that system (Conant & Ashby, 1970). Consequently, a collection of corroborative details does not automatically qualify as a proof (Taleb, 2010); the hypnotic allure of internal consistency can often lull our reasoning faculties into complacency. To avoid this simplistic form of empiricism, a more reliable path to discerning the truth lies in the consideration of negative examples rather than the pursuit of verification. As the axiom goes, "It is with greater certainty that one can identify what is incorrect than affirm what is correct." Consequently, when envisioning future regulations, it is pragmatic to forecast their potential outcomes through the lens of adverse, hypothetically distant consequences, which are generally simpler to conceptualise than assured realities. Thus, delineating what is undesirable becomes an indirect strategy to determine feasible actions. Even when considering such pessimistic scenarios, it is feasible to devise guidelines that, upon their implementation, anticipate multiple undesirable outcomes and prescribe tailored countermeasures accordingly. For example, one might consider projected increases in traffic fatalities or the number of illegal immigrants by incremental percentages such as 10%, 50%, or 75% and establish regulations to address these specific increases. This is the essence of adaptable norms. Regulatory success suggests a model that mirrors reality closely enough. In other words, for it to be successful, governmental decision-making must accurately replicate societal structures.

3.5   Adaptable norms

The relatively unchanging nature of today's laws is only made flexible through traditional legal modifications of statutes, rules, and court decisions. Those in decision-making roles should replace this continuous and rigid adaptation process with more dynamic and adjustable methods that can better anticipate future needs. Adaptable norms[13] have the potential to be highly responsive to societal values, especially when their parameters or boundaries are modified through public involvement. Because of their pliable nature, adaptable norms bear a resemblance to responsive regulation. (Ayres and Braithwaite, 1995) or really responsive regulation (Baldwin and Black, 2007). This approach is based on a regulatory pyramid that applies to all parties involved in an activity, encompassing a range of sanctions or measures that are politically viable for different offences. Each escalation in non-compliance triggers a proportional increase in punitive or other preventive actions by the state. This framework considers the varied behaviours, attitudes, and cultures of those involved in regulation, the context of institutions, various strategies, and how a norm reacts to changes in the environment, potentially necessitating an altered version of the norm. Decision-makers and implementers must judiciously ascertain when pre-set threshold values are reached, aiming for as much accuracy as possible within a feasible time frame. In different situations, or under varying norms, the mechanism operates akin to an electrical relay, adapting its function in response to changing conditions. For Taleb, 'to understand the future to the point of being able to predict it, you need to incorporate elements

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13 The text below presents the possible example of adaptable norm from the area of road safety. It is important to focus on paragraphs 3 to 7, as they demonstrate the adaptability integrated into the regulation, a feature not commonly seen in legal texts across various jurisdictions. The norm in (any kind of) Road Traffic Rules Acts could be:
"1. The highest allowed speeds for vehicles on roads outside urban areas are as follows: 130 km/h on motorways, 110 km/h on highways, and 90 km/h on other roads.
2. Penalties for exceeding speed limits on motorways or highways, which have separate lanes in each direction, at least two lanes per direction, and either a hard shoulder or sloping banks, are set out as follows:
– A EUR 40 fine for exceeding the limit by up to 10 km/h.
– A EUR 80 fine for exceeding by 10 to 30 km/h.
– A EUR 160 fine for exceeding by 30 to 40 km/h.
– A EUR 250 fine and 3 penalty points for exceeding by 40 to 50 km/h.
– A EUR 500 fine and 5 penalty points for exceeding by 50 to 60 km/h.
– A EUR 1,200 fine and 9 penalty points for exceeding by more than 60 km/h.
3. The penalties mentioned in paragraph 2 are applicable as long as the number of violations on these roads remains below a specified threshold (like a certain number, percentage, or number of casualties).
4. Should the violations surpass this threshold, the penalties outlined in paragraph 2 will increase by 50%. These heightened penalties will be effective from January 1 of the next year and will revert to the original amounts in paragraph 2 from the following January 1, provided the violations drop below the threshold set in paragraph 3.
5. If the violations further exceed a higher predetermined threshold, the penalties from paragraph 2 will rise by 75%. These increased penalties will be effective from January 1 of the subsequent year and will return to the amounts specified in paragraphs 2 and/or 4 if the violations during the year of increased penalties fall below the thresholds mentioned in paragraphs 3 or 5.
6. Alongside these increased fines, additional measures for ensuring road safety may be implemented, such as confiscation of the driving license, re-taking medical examinations, or mandatory safe driving courses.
7. The minister responsible for road safety is tasked with announcing any changes in penalties through the Official Gazette. Additionally, road maintenance companies are required to display these notices on electronic bulletin boards along the roads".

from this future itself' (2010). While the notion may be somewhat disconcerting, an individual responsible for making decisions can integrate prospective elements into their strategic model by constructing several (approximately three to four) scenarios. These scenarios are defined by specific parameters or threshold levels that, when reached, will catalyse distinct choices. Through the application of established values and recognised competencies, such a decision-maker is equipped to predict the measures that will be implemented upon encountering these predetermined boundaries.

4 Conclusion

Experts no longer have a monopoly on information or expertise anymore; this holds even more in areas where change, flexibility, or constant flux is present. The current approach to law studies is fundamentally flawed due to its reliance on a rigid and outdated analysis of legal systems. It is imperative that we advocate for a paradigm shift towards a more adaptable analysis of feedback systems. This transition, while challenging, is essential to moving from a static model of legal assurance to a dynamic model of legal foreseeability. The crux of the issue lies in the fact that traditional legal rules, steeped in centuries-old writing styles, are woefully inadequate for addressing the complexities of our rapidly evolving societal and environmental landscape. These regulations lack the essential feature of automatic updating or adaptability, rendering them ineffective in our current context. Furthermore, the process of determining public goals, which is central to shaping effective legislation, is currently hindered by a lack of utilisation of diverse and inclusive methods. Despite the availability of research, surveys, consultations, evidence-based approaches, participatory methods, and expert opinions, these tools are grossly underutilised in legislative processes. This oversight is a significant detriment to the creation of responsive and effective public policy. Moreover, the influence of political considerations, societal values, and economic factors on decision-making must be re-evaluated and aligned with the adaptive approaches proposed in this paper. The determination of public goals is not a static event but a continuous process that demands ongoing engagement with stakeholders and a keen responsiveness to the ever-changing dynamics of society. It is only through this rigorous re-evaluation and adaptation of our legal studies and legislative processes that we can hope to effectively address social issues and contribute to the betterment of society. The time for change is now, and it is our responsibility to ensure that our legal systems are equipped to deal with the challenges of the modern world.

In the contemporary epoch, the notion that experts retain exclusive dominion over knowledge and expertise has been increasingly challenged, particularly in domains characterised by perpetual change and malleability. It is imperative that legal education pivots from its entrenched focus on static legal principles towards a dynamic examination of (feedback) systems. Migration from legal certainty to legal predictability is fraught with challenges, but it is a necessary evolution. Normative frameworks ought to be congruent with the

human and biological zeitgeists that continuously recalibrate in response to their milieu. However, regulations that are articulated in a vernacular that has remained largely unaltered for centuries are ill equipped to grapple with the intricacies of our rapidly transforming landscape, due to their intrinsic rigidity and lack of inherent adaptability. The determination of public objectives is of paramount importance in the legislative process. It is the duty of legislators to explore a multiplicity of methods and modalities to ensure that public objectives are achieved with alacrity and inclusivity. Although research, surveys, consultations, evidence-based methodologies, participatory tactics, and specialist consultations are instrumental in forming the goal-setting agenda, they are rarely used to their full potential. Establishing public objectives is not a finite endeavour, but an iterative process that requires sustained interaction with stakeholders and adaptability to the vicissitudes of social dynamics. It is through this meticulous and considered approach that legislation can effectively tackle social quandaries and contribute to the improvement of the commonwealth. This can be done also by the result- and procedure-based approach of an individual towards a group, with the feedback- and thresholds-systemic law, collective wisdom, negative scenarios, and adaptable norms. Of course, these approaches are not magic bullets, but they are certainly better adapted to the flexible and complex nature of today's world.

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