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Calculations and Trust

Back in 1927, when our university was established, nobody could have anticipated what we would be discussing here, ninety years later: calculations, at a speed and with a reach beyond imagination, are changing our society and economy, and even –my subject– law and justice. Law is the backbone of trust in economic and social relations. Before deciding a law or deciding a legal dispute, information about the facts must be gathered. Calculations based on data collections, maybe, big data collections, replace traditional methods of gathering evidence. Digitization changes the speed and the scope of such information but also the situations that have to be regulated and decided. These changes may appear to be beneficial thanks to their apparent precision, but might also have a dehumanizing effect.

Legal research is not a "pure" theory of norms. It has to investigate the relations between the understanding of legal principles and norms, and the realities of living together. Legal research in the 21st century will forsake its mission if it would fail to include digitization in its scope. The extent to which human behaviour is observed and registered is, especially in developed societies like ours, unprecedented. Regulations on access to data and practical limitations still protect a sort of private sphere. But the potential discovery of yet unknown facts with the refined algorithms of big data applications is making social life unpleasantly transparent.

Oppressors want to know everything about their subjects. But a free society under the rule of law must be different. Essential for our freedom is that we can decide ourselves which aspects of our thoughts and behaviour we want to share with others, unless a legal obligation exists to disclose information. The rule of law requires that legal norms are applied to the facts, but not all facts are relevant for the application of the law. Predictability and specificity of legal obligations are a requirement for freedom. In a free society, legal rules must not try to cover every aspect of life: only those aspects of someone's behaviour are under legal scrutiny as deemed relevant by a specific legal norm. We should therefore not be seduced by the prospect of full transparency that evolves from combining and harvesting huge data sets.

But there is more to say about how the administration of justice is affected by digital information technology, and that is in the domain of legal judgments itself. For now, I will include in my understanding of legal judgments both abstract legal norms, like legislation, and their application in specific cases, like judicial decisions. Legal judgments must be

based on the facts, established through evidence, testimony and other investigations, and on an assessment of the merits; all confined by the scope of the legal norms that are to be applied. Similarly, well-considered legislation requires, in the first instance, a thorough investigation about the situations to which it is to be applied.

This process itself has become the subject of regulation in the Code of civil procedure, the Code of criminal procedure and other procedural laws and regulations. The process of reaching a legal decision has always been viewed as essentially human and therefore profoundly humane. The legal and professional expertise of legislators and judges has traditionally been highly valued, and even more their wisdom. Solomon (שְׁלֹמֹה, Modern Hebrew Shlomo, سُليمان Sulaymān in Arabic, the son of King David) is the personification of this judicial wisdom. That leaves us with the question whether and, if so, how digitization can assist legal decision-making processes and thus contribute to greater trust in the law.

Having such expertise and wisdom is not merely a gift. It can be learned and disciplined. Intuition that has grown with experience can be a starting point and may facilitate heuristic processes, but the obligation to give precise, legally relevant reasons protects litigants and suspects against prejudices. Forty-five years ago, in 1972, this was the subject of the speech that was delivered here, in this auditorium, on the occasion of the 45th university's anniversary, by Herman Schoordijk. The title of his speech was "Oordelen en vooroordelen", "Judgments and prejudices". I remember that day very well. I was here for the first time, as a student at the University of Amsterdam, and – to be honest – I remember that day not only because of Herman Schoordijks inspiring, fundamental speech, but also because I met at the party after the academic session a lovely Tilburg student, Pauline, with whom I married two years later and who is today also here with me. Our emeritus colleague Herman Schoordijk, maybe the only person in our ranks who was born before our university was founded, also intended to be here today, but is now recovering from an accident at an infirmary nearby. Our bestwishes are with him!.

That judgments must be wise and humane, but free from prejudices, is today as important as in 1972. The advance of digital information technology influences the subject as well. Artificial intelligence enables us to replace humans who come to decisions after complex considerations with machines: robots who think and are able to develop unforeseen thoughts. It is still a bit awkward to hear that Saudi-Arabia has issued a passport for a robot who looks and acts to some extent like a human being. She has the face of a woman, but I wonder whether she will be caned if she behaves badly.

Some people ask whether robots, machines equipped with artificial intelligence, can have emotions and are able to imitate moral judgments. The ability to emulate legal judgments is certainly not far away, based on the possibility to discover patterns in precedents, but is that the same as what judges do? Or is it even better, because they don't have intuitive prejudices? Maybe, to some extent; but humans might have left the traces of their own prejudices in the programs and in the patterns of judicial decision-making which are the fundaments of artificial legal intelligence.

I suggest to identify more precisely the fields of research about possibly useful, enhancing interactions between the application of algorithms and human judgments. We have to focus on those fields of the legal discipline that deal with the assessment of facts and their appreciation.

Many of us think of law primarily as a system of norms of behaviour, which is correct, but a legal norm can only come to life in a process of law-making and law enforcement. Jannes Eggens, an eminent scholar of civil law in the 20th century, understood that procedural law has to be at the centre of the legal discipline. Trust in the law means that the people whose rights and obligations are at stake, have faith in the veracity of fact-finding and the honesty of the decision. That is why I draw your attention to the function of laws of procedure.

It is within legal processes – be it legislative, administrative or judicial – where the digitized methods of discovery and judgment will be situated. These digitized methods include techniques of fact-finding, like calculations based on big data, and artificial intelligent support for the assessment of the facts. They compete with or might replace traditional methods, like hearing of witnesses and experts.

We can thus identify a new frontier of legal research: to what extent can criminal, civil and administrative procedural law include and rely on digitized methods? This question is relevant in all subdivisions of procedural law with which we are familiar: criminal, civil and administrative procedural law. In all these domains, digitization can be helpful, but also threatening: whether we can really get the best out of data, depends on rules of procedure that largely still have to be developed: rules about their legitimacy and reliability, and about the way in which they can be challenged. Trust in the law will depend on the quality of the process. I think that this is also true for constitutional law, now that we are witnessing the first encroaches upon its integrity: the apparent manipulation of voters' preferences and election procedures with automatic disinformation in the United States and Britain. Constitutional procedural law must be a new item on the research agenda.

Paradoxically, the availability of information about situations from all parts of the world, almost real-time, has not merely brought people closer to each other across borders. Uneasiness about habits that people don't understand readily – or maybe reject for good reasons – and the feeling of diminishing control over one's own living conditions have provoked dissatisfaction. These feelings have resulted in attempts to classify proximity and difference in cultural and ethnic categories. Judging people on the basis of a categorization is – legally speaking – discrimination. Harmful, degrading prejudices against people based on their identity are much worse than ugly language or behaviour. In the end, they are the most treacherous patterns in relations between people, and result in the annihilation of trust. When unleashed into power structures, maybe assisted by digitized systems of control, it can be the starting point of persecutions and genocide. The basic idea of human rights is the rejection of such categorizations: every human being is equal in dignity.

But we are not doomed to slide away in growing distrust and enmity. To view people in their indelible dignity is also something that people can learn; that must be part of legal education. I would call it humane *awareness*, which should be assisted by the factual

precision that can be based on advanced data analysis. And it should also be assisted by the analysis of patterns of precedents, with the methods of artificial intelligence. It is good for judges to know how under normal circumstances other judges would decide a case. Looking at these patterns is not the end of the story. Normalcy might still reflect prejudices; the usual selection of facts might exclude specific circumstances that necessitate a wider view. Aristotle and in his footsteps Thomas Aquinas, the patron saint of catholic science, understood that, when they emphasized that in the end there is no justice without *equity* as a corrective principle on what a law prescribes.

Following the rules, or following calculated recommendations should not be the end of our thoughtfulness. Emergency and specific needs of vulnerable people are often overlooked in the generalizations of the law. Each inclusion of participants and facts in an automated calculation is also a limitation of the range of considerations. Just one example: a stranger who has lived here for a relatively small time is not necessarily more at home in the country of his administrative origin; who knows what he or she has experienced in between?

Legal judgments have to be based on the principle of mutual respect; awareness about the needs of other human beings –irrespective of who they are– is what a well-ordered society binds together. That is the difference between law and patterns of behaviour in small groups, like the flocks in which the first humans lived, not more than about 160 men, women and children. They knew everything about each other.

The rule of law secures distance and freedom from needless intrusion. The recent advances in data science offer powerful tools for information and evaluation. Nevertheless, in the large groups into which humankind has evolved, we should not want to know too much, but only that what counts in mutually respectful relations. Law is not about meeting friends, nor foes, but about encounters with the other, the Other, who deserves to be respected, regardless of origin or identity. The other whom we meet might very well be a stranger. This is what I, like many others, learned from Emmanuel Lévinas, the Jewish philosopher who came to my attention on a path of discoveries with predecessors, colleagues and students at our ninety year old youthful university.