

# Law and Computer Science

Lucian D. Crainic

March 15, 2023

Lecture notes from the 2023 undergraduate course Law and Computer Science, given by professor *Ciro Palumbo* at the Sapienza Università di Roma in the academic year 2022/2023. Credit for the material in these notes is due to professor *Ciro Palumbo*.

*Disclaimer:* This document will inevitably contain some mistakes— both simple typos and legitimate errors. Keep in mind that these are the notes of an undergraduate student in the process of learning the material himself, so take what you read with a grain of salt. If you find mistakes and feel like telling me, I will be grateful and happy to hear from you, even for the most trivial of errors. You can reach me by email, in English/Italian, at [crainic.lucian@gmail.com](mailto:crainic.lucian@gmail.com).

---

*For more notes like this, visit [link](#).*

Lucian D. Crainic,  
Second Semester: 2023,  
Last Update: March 15, 2023,  
Faculty of Computer Science

# Contents

<b>Lecture 1: Determinism - Free Will - Combinationism</b>	<b>1</b>
1.1 Power and Data Lordship . . . . .	1
1.1.1 Data power . . . . .	1
1.1.2 Predictive machines . . . . .	2
1.2 Quality and Quantity: people and data in the network . . . . .	2



## Lecture 1: Determinism - Free Will - Combinationism

### 1.1 Power and Data Lordship

#### 1.1.1 Data power

This kind of power is neither deterministically configured nor qualified by free will, but occurs in the impersonal concretization of the Power of automation.

When the data related to human networked movements have been processed, only their automated realization can be given, which neither violates nor respects **determinism** or **free will**.

Concerning law, the compounding and traversing, in an inexhaustible circularity, of these two powers show that what had hitherto been named as a juridical judgment is manifested as a combinatorics of data issued by the robocourt, structured as the robolegislator and the robo-philosopher (so as a legal/formal judgement).

Hitherto,  
errore di  
battitura?

#### Note:-

These three figures are configured neither by determinism nor by free will, but currently belong to what is being delineated as **combinationism**, elucidated **Determinism-Free Will-Combinationism** is the structural affinity with the **clinamen**, which Lucretius - *De rerum natura* - presents as the movement of deviation of atoms in their process of falling into a vertical line.

#### Definition 1.1: What does a Clinamen mean?

The **clinamen** is a movement governed neither by the laws of determinism nor by any mode of free will.

It shrinks from an already predetermined whole and yet does not belong to a free will. Illuminated even in its poetic exposition, the clinamen can enable us to grasp that condition of human beings which is not consigned to the executive passivity of already determined operations, but neither is it called to the creative activity of a free production of the laws of physics, chemistry, neurobiology, mechanics, etc.

in today's data civilization, which now sets the existence of human beings, the reference to **clinamen** can shed light on combinationism, which names the composing of data with the production of other data, in an itinerary where the algorithmic knowledge of the networked movements of human beings, navigator-users, leads to a new condition, governed neither by determinism nor by free will, but configured by the **Power of data**.

It is the condition resulting from an integral combinatorics of the information elements, which does not await the free choices and decisions of human beings, nor does it execute deterministic laws, but replaces them with the succession of computational operations, concretized by the Power of automation, which imposes depersonalized movement on human beings, who have become the bystanders, the spectators of combinatorism.

As such, in law, women and men are the recipients of the enunciations, of the judgments, issued by the robocourt, structured as the immune system of the functional

success of the operations generated by the informational unity of the Power of data and the Power of automation, operational according to the Technologies of Information and Connections(TIC).

They are the human elements not reducible to a calculation of data, formative of a **predictive computability**, destined, without sufficient legal reason, either to an algorithmic elaboration of legal rules (legislative-robust activity), or to their automated concretization (jurisdictional-robust activity).

**Note:-**

Progressively pursued is the more efficient, robotic-informational automation of production operations, exemplified by the assembly line, effectively presented in the Modern Times, the Charlie Chaplin film.

### 1.1.2 Predictive machines

Numerical data constitute the material of **predictive machines**, now considered to replace the judgment of the magistrate, transmuted into the robo-judge.

## 1.2 Quality and Quantity: people and data in the network

Similary convincing is the claim that ...

**Claim 1.1.** Playing with children, caring for the elderly, and many other actions that involve social interaction will be inherently better when performed by a human being.

These theses are supported in sharing the analysis that shows that social interaction are fully such when they take place between human beings, between people who find each other in the reciprocity that is not mastered by those who are more powerful in calculating = scheming.

The person does not find himself, does not recognize himself in a robot, who is constitutively devoid of virtues and vices, does not have serenity, love, generosity, etc., nor does he have anger, hatred, greed, etc. He is anaffective, without pathos, without heart, as one might say with Schopenhauer.

As for legal judgment, the use, in the data civilization, of automating tools - algorithms, software, **predictive machines**, etc. - invites the consideration that "robojudists in principle could ensure that, for the first time in history, everyone is truly equal before the law".

The judge, who became a "robojudicator", rooted in the "robolegislator", would not render **judgments corrupted** by means, by knowledge of data, imperfect, biased, but would pronounce **verdicts** which have the structure of mathematical certainty.

**Example.** Reference is made to use of equipment such as scanner and magnetic resonance imaging, which should be able acquire knowledge of what is the objective-material content of brain operations, so as to make false testimony, for example, impossible.

It should be considered that... the **content** and **meaning** of what is **thought** do not consist solely of the set of elements of brain operations that can be objectified by

Ha scritto 'robogijudicator.. errore di battitura probabilmente

the instruments employed by the robographer, since one has in mind that the individual human being, treated by an apparatus deemed suitable for acquiring knowledge of what he thinks, could decide, by his free will, to think only what has no negative bearing on the machinic formation of the robographer's judgment.

Such an individual human being could choose to recite a set of thoughts that is presented as integrally true in its objectification acquired by an artificial intelligence that obtains brain data, but instead is solely an act.

One has here what happens on a theatrical stage where the actor thinks what he says but immersing himself in a character that is not his own person.

Some questions are inevitable :

#### Question 1

The intelligent machine is capable of making the distinction between that the human being thinks and what he says by his actions?

#### Question 2

Is it possible to present such actions to the observation of robojudge ?

#### Question 3

The robojudge can issue a sentence condemning him?

Such a distinction would be possible if they could be objected and separated into

1. The will that chooses to think what he thinks.
2. The will that decides to 'act' what he thinks.

This objectification-separation is not practicable, because in every human being his or her self consists of a simultaneous, interwoven multiplicity of directions of thought, with the consequence that every self does not only think what it thinks, but in its thinking there are referrals to thoughts in the making, not yet pre-calculable, even unconscious, and therefore not objectifiable.

interwoven  
errore di  
battitura?

The selection of the purposes of a legal system should currently belong to the figure of the **robolegislators**, who would operate according to the proper procedure of algorithms, artificial intelligence, etc... *so as to produce-institute a mathematically correct set of norms.*

**Robojudge** and **robolegislator** are situated in front of the alternative 'to function or to exist' they can either operate in the sole itinerary of functional, mathematically correct success, or they can engage existence, in the entirety of their inner life, relating to the inner life of other human beings.

Priority is given to operation, having in mind that **operation** means only everything that can be reduced by data to information!

**Example.** In human beings, the gaze is not limited to the organ of sight, but constitutes, from its first operation, already a search, an interpretation of meaning, unlike the seeing of other living beings or the machinic seeing of viewers... for example, of those instruments employed in the recording of images.

The **robojudge** can enunciate norms in their presentation according to the patterns of **computational thinking**... he cannot enunciate law, cannot therefore grapple with the difference that separates and unites **norms** and **law**; the **text of laws** is oriented toward law.

No **robojudge** can accomplish a work that is proper to the art of interpretation! The **robojudge** cannot *unite* and *distinguish* **norms** and **law**, the certainty of legality and the anxiety of justice, never suppressible in the inner life of human beings.

The figures of the **robojudge** and the **robolegislator** are clarified by the analysis of the figure of the robo-philosopher, giving light to the condition and task of contemporary Philosophy of Law.

The **robo-philosopher** is built and programmed in such ways that should enable him to possess the data consisting of the knowledge of philosophizing of all times and places.

On this direction, who better than the robo-philosopher, "who better than an artificial intelligence, with the breadth of its knowledge, the rigor of its reasoning and the disinterestedness of its judgment" could operate in that terrain that has so far been left to the limitedness of human beings.

The robo-philosopher is programmed to acquire and process data referable to questions of 'philosophizing', even those that belong to Hegel, such as the servant-master dialectic presented in the Phenomenology of Spirit and now central to the data civilization.

The robo-philosopher is programmed to acquire and process data referable to questions of 'philosophizing', even those to the data civilization.

The contemporary situation is precisely qualified by ...

- The emergence of the relations between the lords of the net.
- The masters of search engines, platforms, etc.
- And the rest of humanity, constituted by those who access the navigation of the **infosphere**, undergoing the procedures that impose on them the formations of profiles, intended to make them operate as obsequious consumers, effective servants.

This new configuration of **servants** captures the features of automation mechanization, describing the **current data civilization**.

The introduction of artificial intelligence, in the sectors of human society, gives a new scope to reflections on the dialect of the **master-slave dialectic**!

**Claim 1.2.** The **robojudge**, the **robolegislator** and the **robo-philosopher**, as machine entities and not human beings in the flesh, are not born and do not die, but begin to function and end up functioning.

**Claim 1.3.** The figures of the **robots** do not dialogue but **execute** a program built algorithmically to arrive at a **mathematically correct result** and as such placed outside the circuit of the dialogue.