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Law via the Internet 2018
Knowledge of the Law in the Big Data Age
Partners:

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10. UNION DES AVOCATS EUROPEENS (U.A.E) – Luxembourg
11. ADICONSUM - Italy
“The history of law is the history of dispute settlements, the history of ways to establish peace” (N. IRTI)

Therefore, if we find instruments for settling disputes, the result of which is a sharing of interests that satisfies the parties, we can say that we have found something that could be a legal instrument.
There is already a rich theoretical and mathematical framework, flowering on Steven J. Brams’ pioneering works, (while an adequate juridical implementation is quite scarce).

The best known example of these procedural fair solution is the cake cutting problem.
The cake cutting problem
In the fair solution procedure: *the parties* attribute a value to *things and behaviours*, *the law* is reduced to its purity, namely to the procedure according to which the attributions of values of the parties could lead to an agreed conclusion or resolution of the dispute.
The primary goal of the project is not that of exploring the research on decision theory, looking for new models, instead we will try to test the extent to which the models in the state of the art are already directly applicable in the domain of law.

New models will be eventually developed after this stage, as a result of the empirical determination of the problems arising from the proposal to lawyers and citizens of these new procedures.
One of the weak points in our approach could be represented by the fact that in a complex and institutionalized society, as all our contemporary societies are, the law is constituted by a complex linguistic structure that in different ways establishes what is mandatory to do and what not. Every normative provision is linked to every other and often the solution of a dispute (keeping the peace) depends on a whole series of assumptions that those linguistic expressions pose and which are not in the disposition of the parties.
Equity and Law:

Aristotele: *epieikeia*
Bulgaro: *Ius est aequitas constituta*
J. Rawls: *Justice as Fairness*
G.M. Chiodi: “L’Equità è giustizia pratica e concretizzata”
C. Perelman: “Equité comme béquille de la justice”
Our approach is entirely bottom-up: the parties themselves determine the settlement of interests and reach the final solution.

CREA project endorses the theoretical premises of decision theory studies.
There is already a good theoretical work in the legal field, even if not sufficiently widespread or shared in the scientific community.

A) The Lodder-Zeleznikow Three Step Model
B) The Thiessen and MacMahon Smartsettle
C) The Brams Taylor Adjusted Winner
D) Bellucci-Zeleznikow Family Winner
E) Bellucci AssetDivider
There are also some first legal applications:

**US:**
Cybersettle, clickNsettle, SettlementOnline, SmartSettle, Internet Neutral, Square Trade, One Accord, and WebMediate (a lot of them no longer available)

**Europe:**
- UK’s forthcoming Online Solutions Court and British Columbia’s Civil Resolution Tribunal
- the world’s first law on Online Dispute Resolution (ODR), requiring most European e-commerce and service provision websites to promote ODR
- the Modria/HiiL collaboration on Rechtwijzer 2.0 and other projects from these bodies
Primary Legal Goals

1. **Cooperation** for satisfying both parties from the final output

2. Peaceful **Resolution** of disputes

3. Improving **Efficiency** of justice

4. Intensifying **Access** to justice
CREA Objectives

- To apply game-theoretical algorithms to the solution of specific national and cross-border civil and commercial matters
- To demonstrate the efficacy of an algorithmic approach
- To analyse new areas in which, specifically, the algorithms already developed – and the ones under development – could be tried out
- To develop a software
- To create a «European common ground» of available rights
- To develop new algorithms in order to help the parties to reach a settlement that mirrors the most salient concern of each side
The solution is found not by establishing ex ante which values are important, but

- without starting from descriptions of cases, and
- without attributing rights
- using algorithms as excellent tools
- in order to reach the solution
A point-allocation procedure will be tried out in negotiations that involve easily specified issues or well-defined goods.

This methodology will be applied to the allocation of goods in areas such as divorce, inheritance and estate division.

This procedure will be not only efficient and proportional but also “envy-free”
The approach could help judges and lawyers to set the legal procedure not as a confrontation-clash of the parties, but as a process aimed towards the consensual agreement.

The judge and the lawyer will not be viewed as custodians of the right or true legal solution anymore, but only as an aid to the parties who themselves become the authors of the solution.
In the legal area we will start with the immediate processing of some application examples in areas where some lines of research have already opened up the field, and where we have pretty powerful algorithms, such as the division of assets in the communion between two parties and where there is no dispute about the rights but only on goods.

See i.e. [www.fairoutcomes.com](http://www.fairoutcomes.com)

In this case the choice of the algorithm to be used can only be based on a criterion of efficiency.

This first example will be immediately extended to cross-border disputes.
We will develop two other project’s lines:

• The first one, in order to verify the applicability of the algorithms already used or of their variants in cases where the parties are more than two, and where there is no dispute about the rights but only on the goods.

• The second line is aimed directly to the citizens and we will develop a strategy allowing involvement of these and other algorithms to spot, even in the event of a dispute on a legal point.

The last step of the legal part is a phase of fine tuning the results obtained, along with the attempt to create a “European common ground” of available rights, which would not be grounded in legal principles but instead in the properties of the algorithms.
In the Analytical – Mathematics area the main activities carried out will be the following:

(A) advice and choice of algorithms to be applied in different situations.

(B) any modification and adaptation of existing algorithms to legal peculiarities.

(C) where possible and profitable, development of new algorithms on different assumptions than those investigated so far.

Possible examples are the Point allocation method, the Picking sequences method, the descending demand procedures.
There are three order of problems that require different plans of analysis

1. The first and most profoundly affecting the lack of knowledge about these systems, in the legal scholar, derives directly from the separation of law studies from all other fields.
Conclusion

On the other hand, some sectors, such as economics, offered instruments of regulation based on effectiveness which sought to separate the concept of law and right from that of legal rule or state rule.

There are some significant attempts to innovate in this difficult area, avoiding the jeopardization of the legal field by the economics, but the change of theoretical approaches, here, is really huge and will require the long-term effort of great minds.
2. The second level of analysis is algorithmic: the development of new algorithms can also depend on a tight dialogue with practice.

However, the assumptions of perfect rationality, typical of this research, are often poorly adapted to the emotional confrontation that involves the parties to a legal conflict. We have to be aware of this emotional part, or, in any case, we have to keep it in mind for the performances of the system.

Here we can use mechanism design systems, which leave the parties in their prejudices and emotionality, however allowing them to work towards the resolution of disputes.
As far as we know, this field of study applied to the law is under-exploited and much work remains to be done. For us lawyers it is particularly important, because we can draw a confrontation that takes into account the non-rational aspects of individuals, regulating them in the design of the mechanism, or the procedure of confrontation between their respective positions.

However, in order for the model to be fully successful it is necessary, as these are models with limited rationality, to have an experimental part which is provided, for the CREA, at the Laboratorio di Economia Sperimentale Luiss Guido Carli (CESARE).
3. The third level is essentially political and requires the cooperation of the institutional authorities to introduce these new procedures into the legal systems.

In this regard, the European Union is a valuable ally, because:

A. The new procedures do not necessarily require adaptation of substantive rules in different countries.

B. The European citizen can start looking at Europe as an alternative legal system to the national legal one to which he or she can freely turn.
Out beyond ideas of wrongdoing and rightdoing there is a field. I'll meet you there.

(Rumi, 13th century)
Thank you

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