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Author(s)	Antonini, Alessio; Blengino, Cecilia; Boella, Guido et al.
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Norm dynamics: institutional facts, social rules and practice

Alessio Antonini, Cecilia Blengino, Guido Boella, Leendert van der Torre

1 Introduction

Norms are created by social agents in a complex environment. Norms are adopted, implemented and used according to the result of the dialectic between the "normative message" of norms and the receiving contexts. Law scholars refer with "social rules" to what was actually adopted by the population and with "legal practice" to the pragmatic rules adopted by institutional agents. Local cultures, communities, language affect are components of norms context affecting the very meaning of norms. Further, norms are vaguer than language, there is a calculated incompleteness or incomprehensibility of the legal text [1].

Assuming a perspective focused on communication, any rule appears substantially as a message: a communication act with special "prescriptive" properties [2][p. 159]. As messages, norms iterate within a discursive space. The interaction does not take place in an empty space, but there is always the presence of "other speakers" [2][p. 163]. This dialectic affects norms, up to change also substantially their original meaning. Characters and interests of the audience inevitably influence the message itself [3]: the same legal discourse, while inverting the rules, it appears different depending on the social group to which messages are directed ("law", "legal discourse", "doctrinal discourse", etc.).

Alessio Antonini
Dipartimento di Informatica, Universit degli Studi di Torino, e-mail: antonini@di.unito.it

Guido Boella
Dipartimento di Informatica, Universit degli Studi di Torino, e-mail: boella@di.unito.it

Cecilia Blengino
Dipartimento di Giurisprudenza, Universit degli Studi di Torino,
e-mail: ceciliapiera.blengino@unito.it

Leendert van der Torre
CSC, University of Luxembourg, e-mail: leon.vandertorre@unilu.lu

In this contribution we take in account the norm dynamics exposing its structure as a multi-phase, continuous, complex, cyclic social process. In particular, we answer to the following questions:

1. how to expose the components of norm dynamics?
2. how to generalize norms life-cycle?
3. how to deal with the different agents' roles in norm dynamics?

Starting from a representation of norms as a network of social objects [4], we introduce the role of agents in norms creation [5] and the role of agents in the effectiveness of norms [6]. We connect agents to social objects through actions, powers and obligations (roles), as described by Broersen et al. (2001) [7] or Boella and van der Torre [8]. This leads to a representation of norms with agents' roles and phases of dynamics of norms. Using real cases and representations, we expose a scenario much closer to real life and a general outline of an equivalent model for norms. We aim to an incremental representation of norms to collect the traces of agents actions and make the hidden relations emerge.

The rest of this contribution is structure as follows. In section 2 we show two real scenarios to introduce a representation for norm dynamics. In section 3 we address our methodology.

2 Anatomy of norm dynamics

Now we consider norm creation in the social delegation cycle works as defined by Boella and van der Torre [5]. The social delegation cycle starts with a set of individual agent desires and goals. The first step leads to group or social goals via merging, the second step leads to norms and sanctions via planning, and the crucial third step of acceptance checks that the norms lead to satisfaction of the individual desires and goals the cycle started with. This is meant to be a logical model, that is, these logical relations exist between individual and group goals, and norms. It is not a protocol, that is, we do not have to go through these steps one by one. For example, in determining the group goals, the fact whether there is a norm which can implement it, may play a role in its adoption. How do we go from these abstract relations to a more refined model of norms? How do we represent the relations between norms, other objects and agents?

A norm n changes over time, for instance following the meaning shift of legal concepts or changes in legal texts [4]. An ontological shift is caused by agents' actions. Roles define agents involvement in society. Also, an agent can hold different roles, so they follow a personal mediation among all their roles, norms and expectations. In figure 1 we represent with nodes G_n^0,G_n^1 and G_n^2 the status of a norm graph G_n at time t_0, t_1 and t_2. Each shift is consequence of different set of agents, grouped by roles.

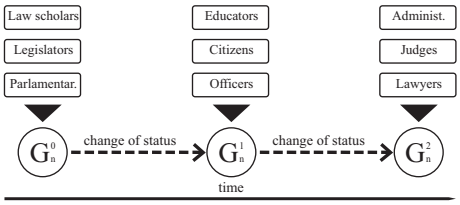

Fig. 1: Roles can change aspect of a norm *n* over time.

2.1 Role interpretation and local cultures in norms

Now, we'll discuss to limit cases to expose the general phases of norm dynamics and the features of a general representation of it.

Example 1 (1st part). Italian Constitution rules the Prosecution with two fundamental principles: the "mandatory prosecution" and the "reasonable duration of the action". A norm stets the Prosecutors to be a magistrates and a managers, they must pursue any crime and solve them quickly with their limited resources; this obliges them to order their work. These norms underline both the relevance of leadership styles and the relevance of the "local legal cultures" [9] on the output of each Prosecutor office. If a formalistic legal culture conducts not to comply to the mandatory prosecution norm, by the other side a managerial legal culture requires the Prosecutor to choose which crime give priority.

1) the way they deal with role conflicts is not a priori but a set of small choices they make and revision time to time.

Example 2 (2nd part). Prosecution is strongly dependent on the organization of each local judicial office. Each prosecutor office is linked by specific relationships with institutional actors (local court and advocacy) and with not institutional actors (politicians, social services, health services, trade associations, victim association, neighbourhood committees, etc).

2) We should expect behaviors that are agents' interpretations of roles.

Example 3 (3rd part). The analysis of the prosecutor offices of Turin and Bari shows how the ways every Prosecutor connects external inputs to the outputs of the Office create different organizational choices and, finally, different judiciary policies [10]. Inevitably prosecutors decide their job schedule taking in account what they think is more important to their local community. Prosecution is largely influenced by not juridical inputs, as local claim for justice.

3) The locality of norms arise from local cultures and local procedures that are implemented to deal with the close environment.

Example 4 (4th part). The influence of the perception about the social alarm produced by certain crimes is evident in the Prosecutors decision to create specialized

groups for specific types of crime. The perception of the social alarm also influences the choices about how much money and how many people destine to each activity and each specialized group. For instance, the fear for organized crime lead the prosecutor office of Bari to destine two- thirds of its magistrates to pursue this crime and consider less important crimes like thefts and muggings, while the office of Turin created a specific work group aimed to combat street crime, mostly to meet the demands of citizens committees.

4) The locality of norm transposition drive to different local dynamics.

Example 5 (5th part). Crime perception influences the definition of the internal proceedings with the construction - in each office - of different ways to treat "notitiae criminis" of different type. If a crime is considered more serious than others it will be assigned to a "specialized group" and it will be pursued carefully. Considering the limits of court resources and the prescription times of crimes, in each office some crimes will not even considered despite the reporting of authorities. Furthermore, to comply to the norm that oblige to speed trials, the office of Turin has defined automatic procedures for the "notitiae criminis" that Prosecutor believes are easily solved. In this way, prosecutors sometimes involuntarily pursue with greater hardness less serious crimes.

5) Local dynamics result on local norms.

In those examples agents' choices are not arbitrary, they mediate between their roles conflicts (magistrates and managers) and society requests (social expectations). Agents cannot just follow rules but interpret the underlying general principles.

2.2 Emerging norms

In the following example we show also that legal texts are part of complex dynamics.

Example 6. Currently, citizens' right to withdraw the cure is not recognized in Italy. It is missing a norm that defines the role of the anticipatory declaration, "living will", about what actions should be taken for their health if they are no longer able to make decisions due to illness or incapacity. In Italy, the only normative source is the article 32 of the Constitution that states the non-mandatory of medical treatment. Despite the lack of norms, in many judgments are recognized the validity of living will.

6) Norms are not just created, they can also spontaneously emerge from the current system.

In example 6 shows a norm that emerges from the normative system and the social expectations: living wills are normed even without a legal text that defines what they are and how they should be collected.

2.3 Structure of norm dynamics

Looking at agents' actions, a norm is the result of a continuous process that redefines it. In figure 2, we show three main phases, each of them present their own dynamics:

a. only a set of roles can directly participate to it,
b. local culture or domain knowledge required,
c. scope of agents' actions (local interest for their traces).

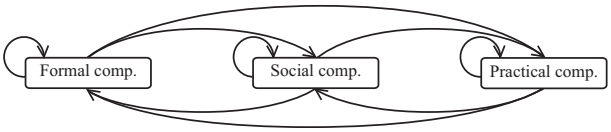

Fig. 2: Institutional-creation process of norms, transposition of norms in society and use of norms in law practice and regulations.

However, each component is strongly connected to others making them a single system. Agents bridge norm phases:

a. agents can play different roles (they can act in different phases),
b. agents do not always act according to their roles,
c. agents have access to almost any information,
d. agents share (common) knowledge and beliefs despite their role,
e. relations among agents are not bounded to their role.

In figure 3 we represent an instance of norm n with its three components G_{n_0}, G_{n_1} and G_{n_2}. Each component is made by an explicit structure, like T_{law} legal text and C_{law} law concepts, but there are also many connection between them (dashed lines) emerging from agents actions.

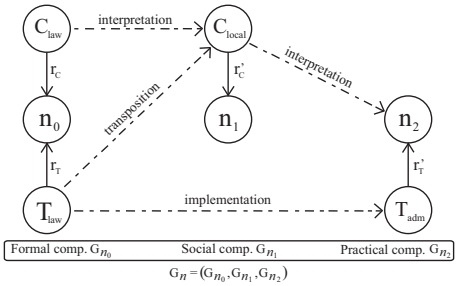

Fig. 3: Explicit and emerging structure of a norm n.

Figure 3 represent a norm G_{n_0} made by a legal text and legal concepts[1]. G_{n_1} represent what is called social norm and G_{n_2} legal practice. We indicate with dashed

[1] It is an extreme simplification of norm content, for further discussion see "Beyond the rules representation of norms: norms as social objects" [4].

edges some emerging relations that we expect from agents'actions (not limited by their roles). We labeled them with the name of the social phenomenon: *interpretation of norms and social expectations, implementations of norms in local procedures and regulations, and norm transposition in society*.

3 Conclusions

We introduce a complex representation of norms that takes in account the institutional, social and practical aspects of norms. Our representation is based on a methodology for building social objects from agents' actions. We extended an early representation of norms with phases and agents' roles involved in norm dynamics, figure 1. Using some examples, we exposed the characteristic of norms dynamics, figure 2. After, we showed in figure 3 an instance of representation that takes in account the complexity of norm dynamics.

We start to expose important features of norms dynamics and requirements for norms models.

1. *How to represent norms taking into account the institutional, social and practical aspects of norms?* We show how to represent norms is necessary to include the representations of agents' actions: norm creation, norm use and norm practice, like in figure 3.
2. *How to generalize the dynamics of norms with a process that involves agents roles?* We exposed the multiple level of norm dynamics: phase dynamics (impact of agents' actions and beliefs on norms), figure 2, and inter-phase dynamics.
3. *hot to represent the role of agents in norm dynamics?* Finally, we showed norm dynamics phases dependencies: agents' groups, agents' roles and local cultures. In particular, each context give birth to a new phase with its own local dynamics.

Commonly, norms are represented as rules. That solution has great advantages and few disadvantages related to the readability of big set of rules. However, in legal practice, the norm is not exhausted by rules extracted from the legislative text, but it is something that emerges from all the legislative system, the interpretations, the judgments and in general from the whole social system around norms. So, using directly rules to represent norms brings out several problems due to the arbitrary and rigidity of the rule implementation.

The idea of "social object" suggest the use of an object oriented modeling technique. Also, social objects are instances of models (or other social objects) suggesting the use of classes. However, it is impossible to pre-determine agents' behavior. So, we describe open models - what components an instance should contain - that will result in graphs. We provide an additional level or representation (a network of social objects) that connects agents with concepts representations like ontologies or rules. We use those representations to gain insight into the nature of norms and the relations with agents' mind. A more detailed model is expected to arise in future studies.

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