#Unfair #Law: Folksonomies & Law between Openness and Knowledge

Federico COSTANTINI[a]
[a] *Dipartimento di Scienze Giuridiche, Università degli Studi di Udine*

Abstract. In this poster I suggest that folksonomies could be fruitfully used in legal information management as a collective process of "codification" carried out by the users of legal documents available on line. In this sense, through the "lattice" topology of collective tagging systems could arise a synthesis between "openness" and "knowledge", legal information retrieval and legal artificial reasoning.

Keywords. Folksonomies, Legal ontology, Legal artificial reasoning, Semantic Web

1. Background

From data to metadata: collective tagging systems. Today each Internet user might be aware that the tag is identified by the "#" (hashtag) and is associated with a hyperlink. By tagging we can: (1) describe the contents of an object, (2) label the item freely, without having to follow a preset taxonomy, (3) use any lexical expression, even belonging to natural language, (4) allocate many tags to an object or assign the same tag to different objects, and (5) share or recommend our choices and preferences.

Introducing folksonomies. Sets of categories resulting from the use of tags in the description of resources are commonly defined as "folksonomies". In folksonomes, the spontaneous activity of users generates information. Let us assume that collective tagging systems consist of three elements: (1) the users of the system (people who actually do the tagging), (2) the tags themselves, and (3) the resources being tagged.

Empirical findings on legal information management in the Internet. A few features should be addressed: (1) the relationship between legal texts and legal concepts, (2) multilingual contexts, as, for example, in the European Union, (3) transposition in different characters, such as those of Chinese, and (4) technical difficulties that affect availability of documents.

2. Theoretical framework

The theme can be addressed taking into consideration four theoretical aspects. For each level we can focus on three key concepts. Among them we can establish cross-cutting relationships.

Metaphorical level: "bottom-up", "top-down", "lattice". The figure of the "network" is often used in contemporary thought to represent the ideal synthesis between two functional patterns, the "bottom-up" and the "top-down". The pattern of

the human mind, the topology of social relations, and the logical structure of computer networks are all represented with the "lattice structure".

Epistemological level: inferential logics, deductive systems, complexity theory. The "bottom-up" model provides a reliable empirical analysis but fails to provide a satisfactory synthesis. The "top-down" model, on the contrary, allows achieving a rigorous classification of the data but excludes those which leak from *a priori* categories. Through the "complexity theory" have been developed patterns suitable to organize the data into information constructing flexible representations, that is, systems that can adapt their structure to changes in the environment.

Philosophy of law: codification of sources of law (French Civil Code), codification of legal reasoning (German Civil Code), codification as process (contemporary complex legal systems). The most recent applications of the "complexity theory" to the law are trying to overcome the limitations of the modern conception of "system" combining the theory of the sources of the law with the theory of legal reasoning. This is done by means of a "lattice" logic structure that has two main functions: (1) to open the system to the changing influences of its context, and (2) to articulate the information in a permanent organization.

Legal informatics: inferential theories (openness), legal ontologies (knowledge), folksonomies. There are two key aspects: the sharing of resources by Internet users and the representation of data in a logical-mathematical structure. In overall terms, I may refer to the former element as the "openness" and to the second as "knowledge". As of "openness", it is worth highlighting the efforts to increase as much as possible the interaction of the legal system with the social environment. Concerning "knowledge", it should be considered that the widest amount of data remains meaningless if not organized.

Considering legal information management, the two issues above outlined affect both its main research fields: legal information retrieval and legal artificial reasoning. As regards the first aspect, nowadays information technologies enable us to access not only to the legal documents, but also to the data held by public institutions (Legal Open Data) (in Italy, see http://www.dati.gov.it.). With regard to the second aspect, the amount and diversity of data that we face is such as to overwhelm not only our ability to understand but also processing capabilities of the computer. The application of folksonomy to the law allows the interaction of "openness" and "knowledge" through users activity of tagging.

3. Main issues on folksonomies and law

Several remarks have to be made. (1) Law aggregates vast communities of users, since there is an obvious interest in that matter. (2) Users belong from different cultures, backgrounds, skills and jobs. The essential difference between "experts" and "novices" nowadays seems to fade, especially if we consider the ongoing process of specialization sustained by the legal professions. (3) It could be acknowledged that law has a taxonomy that is understood or that can be learned in its broad lines by all users without special endeavour. (4) Certainly there is a huge amount of disparate legal documents (for example, legislative texts, judicial decisions, regulations, comments, scientific research, manuals, notes, but also video footages, audio tracks, and even images or pictures). (5) It seems that the description of the legal documents by users can be made more efficient and effective with some simple measures, such as

integration with legal ontologies or the suggestion of labels by users who release the documents on line (the drafters of the legislative texts, for example), namely by applying "narrow" folksonomies. (6) Through folksonomies it would be possible elaborate qualitative elements that would hardly be considered otherwise: individual feelings and beliefs, collective principles, ethical values, legal arguments. These elements, suitably treated, could be useful for the assessment of what is identified as "implicit knowledge" of the legal system and thus for building legal ontologies and graduating defeasibility in the representation of the rules. (7) Final addressees of legal system may directly influence the creation of the legal ontology that is its logic representation, in this way pushing the legal system to an effective "openness".

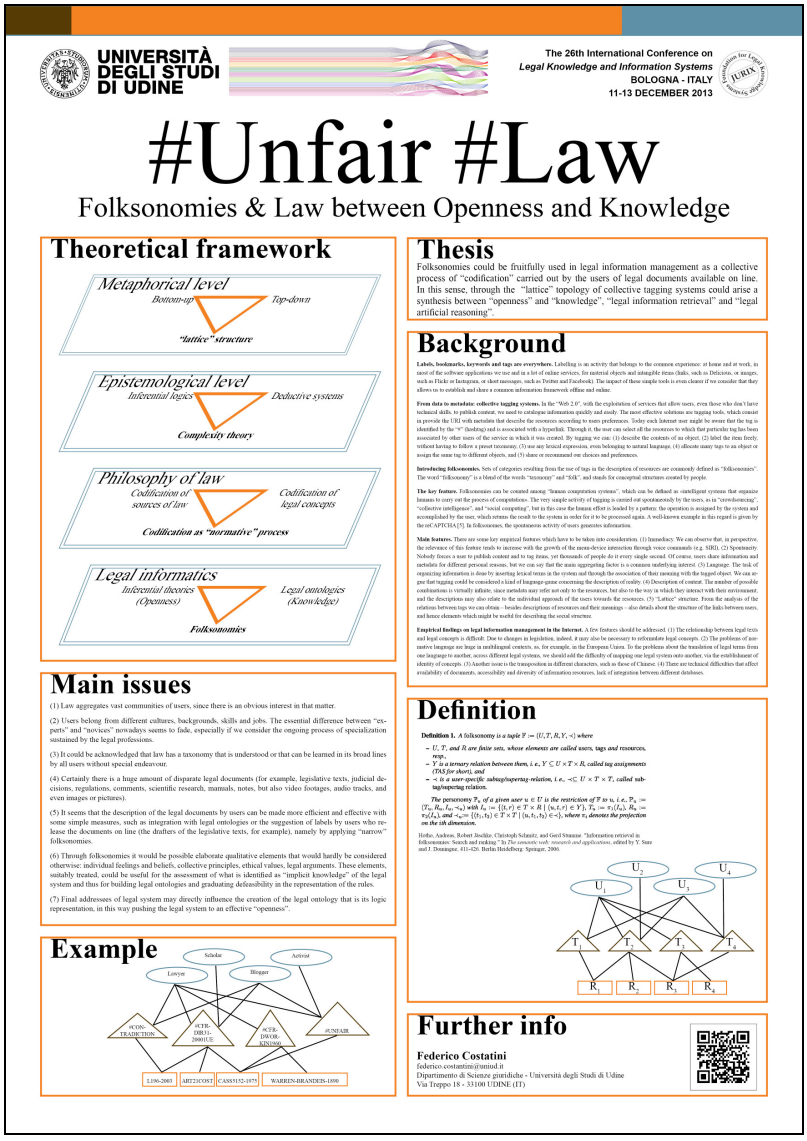

Figure 1. Poster image.