INTRODUCTION TO THE SPECIAL ISSUE ON LEGAL XML AND ONLINE DISPUTE RESOLUTION (ODR): a necessary turn in Law and Technology

INTRODUCCIÓN A LA EDICIÓN ESPECIAL SOBRE XML JURÍDICO Y RESOLUCIÓN DE DISPUTAS EN LÍNEA (RDL, ODR): un giro necesario en Derecho y Tecnología

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Abstract

This is the introductory article to the Special Issue of Democracia Digital e Governo Eletrônico 10 (2014/1) on Legal XML and Online Dispute Resolution (ODR). We introduce the twenty articles of the edition. We have divided it into three different parts, considering the level of generality, scope, and specificity: (i) Law, Governance and Technology; (ii) Legal XML in context; (iii) Crowdsourcing and Online Dispute Resolution (RDL, Online Dispute Resolution). In this introduction we describe how recent developments of Web 2.0 (Social Web) and Web 3.0 (Semantic Web) shape new scenarios through regulatory frameworks that cross multiple jurisdictions, and point at a plural and fragmented global law.

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Resumen
Este es el artículo introductorio de la edición especial de Democracia Digital e Governo Eletrônico 10 (2014/1) sobre XML Jurídico y Resolución de Disputas en Línea (RDL). En él presentamos los veinte artículos que componen la presente edición. Los hemos distribuido en tres partes distintas, atendiendo al ámbito y especificidad, de más a menos nivel de generalidad: (i) Derecho, gobernanza y tecnología; (ii) XML jurídico en contexto; (iii) Crowdsourcing y Resolución de Disputas en Línea (RDL, Online Dispute Resolution). En esta introducción se describe cómo los últimos desarrollos de la Web 2.0 (Web Social) y de la Web 3.0 (Web Semántica) configuran nuevos escenarios con marcos regulatorios que atraviesan múltiples jurisdicciones y apuntan a un derecho global plural y fraccionado.

Palabras clave

1 Introduction: a recent turn in Law and Technology

Most of the articles in this issue were first presented at the IV Symposium of Legal XML Computing and Online Dispute Resolution held in Barcelona Palau Macaya, 4-5 December 2013. The Symposium was a follow-up of another Symposium on Mediation, held three months earlier in Madrid’s Caixaforum, on September 26-27 2013. Both events draw from the investment and organizational effort made by public and private sectors in the

3 http://158.109.228.15/simposio/es/index.html
4 The title of the Symposium was Balance de un año de vigencia de la Ley 5/2012 de Mediación Civil y Mercantil http://mediacionesjusticia.files.wordpress.com/2013/09/iii-simposio-gemme-mediacion-y-tribunales-nuevo7.pdf

The interest for dispute resolution and conflict management is not just a mere derivative of the late development of legal proceedings and the rule of law in the 21st century. The democratic desire for new forms of participation and more effective, fast, and adjusted justice in conflicts of interest, controversies, disputes and litigation also comes from the depths of social transformation in contemporary societies. There is an essential combination of social, scientific and technological changes at the center of this transformation process.

Ten year ago it was still possible to describe the relationship between law and technology, (and the opening it to semantic web applications) by delimiting two large fields: (i) ICT law (privacy, data protection, intellectual property, security, domain names, etc.), (ii) information technology for legal professionals (e-government, e-justice, ODR, multiagent systems, etc.). The first set corresponds to legal regulations based on positive rules and regulatory systems. The second focuses on tools, software and applications to improve the daily practices of legal and institutional agents.

Nevertheless, the fast development of the Semantic Web and mobile technologies, the emergence of cloud computing, mass participation in social networks, and the progressive personalization of computing tools have opened up a new set of scenarios that have enabled the rapid expansion of computer models of law (CASANOVAS et al., 2008). The two areas mentioned above are converging now towards hybrid mixed models where legal theory, positive law (national, international, EU), administrative and political governance, and market and business practices are integrated into regulatory systems of platforms and web-services (CASANOVAS; POBLET, 2009).

These new technology developments are challenging the traditional way of regulating the behavior of citizens, consumers, governments and businesses. The Web 2.0 —the "Social Web", where prosumers are involved in the creation and modification of content—, the Web

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5 It was a research project which involved the coordination of development teams of about one-hundred researchers and sixteen teams. The White Paper linked the development of forms of mediation and dispute resolution in Catalonia with the available data on the crisis in the administration of justice and the needs arising from the new social realities caused by strong external and internal migratory movements in the territory. (CASANOVAS; LAUROBA; MAGRE, 2010a, 2010b).

3.0 —involving the representation, automation, annotation, classification, storage and retrieval of such content—and the upcoming Internet of Things, with its millions of connected devices and sensors, are all shaping the new regulatory models.

It is no longer possible to separate adamantly law and technology, for the sources of law are increasingly diverse and fragmented. But it also increases the possibility of linking data and metadata openly and intelligently for a reasonable and effective use of legal content (rules, norms, principles, policies and behaviors) within interactions, contracts, agreements and negotiations.

The idea that Law is Design has strongly emerged in the few last years. Law can be articulated through social intelligence, allowing the regulation and coordination of individual and collective behavior within networked organizations or on the Web. Behavior is not only natural, but artificial as well. And natural and artificial intelligent agents can be articulated through electronic (and legal) institutions.

Actions with legal effects in licensing, auctions, intellectual property, patents, etc. in the traditional fields of law have already begun to be effectively treated by rights expression language management approaches and the so-called agreement technologies (OSSOWSKI, 2013). Security, privacy, data protection by design—in short, privacy by design (PBD)—; and, secondly, the improvement and widespread use of geolocation techniques, selective collection of information and mapping in the rapid detection and management of natural disasters and collective violence, have begun to be taken into account by parliaments, commissions and social rulers as well.

This interest is mutual: the W3C and the latest edition of the European Semantic Web Conference (ESWC) have included modeling rights and governance policies as one of the major challenges for the Web development.8

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7 See the ESWC-14 recent Tutorial on Rights and Licensing http://tutorials.oeg-upm.net/rightslinkeddata/
8 http://2014.eswc-conferences.org/

2 On the Contents of this Special Issue

We have divided this edition into three parts: (y) Law, Governance and Technology; (ii) Legal XML in context; (iii) Crowdsourcing and Online Dispute Resolution (ODR). We will define these concepts as they are needed.

In the first part of the Section, we have grouped some articles focusing on the broader aspects of the relationship between law and technology. Fernando GALINDO shows some results obtained and the methodology followed in problem solving according to the experience of LEFIS and the University of Zaragoza in Law and Information Technology (ICT). He follows this approach in web-services building and applications for smart cities. Second, Mauro Marafita CAMOZZATO and Valéria Ribas do NASCIMENTO warn about the change that represents the ability to configure users' profile through the queries they perform using Google search engine. This change, which also has positive aspects, is not without risk to the autonomy and freedom of citizens, as was recently also noted by the recent Court of Human Rights in The Hague on the "right to be forgotten". Finally, Cláudia da Luz Brant de ARAÚJO and Luiz Cláudio Gomes MAIA present his research on public services offered on the Internet. After examining the distribution of population in major cities of the State of Minas Gerais conclude that technological resources are being underutilized in relation to the management of public services for citizens.

The second part of the Section focuses on eXtended Markup Language (XML) for law, or more concisely, Legal XML. This markup language is used to structure metadata of a document (author, content, origin ...) and is complemented by the so-called XML-schema, a language which is a W3C standard since 2001 and used to express some constraints on the documents. Since then, several lines of research have been flourishing within the field of legal documentation for the organization and classification of legal texts (BIAGIOLI; FRANCESCONI; SARTOR, 2007; SARTOR et al., 2011a; SARTOR et al., 2011b; GONZÁLEZ-MARTÍNEZ, 2014). It is worth noticing that articles of the second part of this issue do not show only the technical work performed on legal semantics, but the structure of normative content in different legal contexts as well.

As Fulgencio SAN MARTÍN exposes in the article that opens this section, EUROLEX, the Publications Office of the European Union, responsible for publishing and archiving the EU legal documents and legislation, has recently changed their systems to adopt a project for the semantic access to legal information. The author presents the data model based on ontologies which is being built to manage it. In the second article, Angel SANCHO FERRER, Carlos FERNÁNDEZ HERNÁNDEZ and Pierre BOULAT describe the general features that define legal search and queries as an autonomous legal field relative to other fields in which other different search engines apply. The authors establish the state of the art in the legal field and describe their experience at Wolters Kluwer to respond to face these challenges.

In a similarly technically way, Dámaso Javier VICENTE BLANCO, M. Mercedes MARTÍNEZ GONZÁLEZ, María Luisa ÁLVITE DÍEZ and María Isolina DABOVE describe in the following article the experience of the University of Valladolid in shaping the rules of private international law using XML. Stemming from the development of two interdisciplinary research projects on this subject, they discuss what they call "the broken mirror of private international law". Application of semantic languages are proposed as a task of harmonizing the currently fragmented existing legal reality.

The two papers that close the section on content management point at legal conditions for processing legal documents. María José VAÑÓ analyzes the significance and importance of the integration of interoperability schemes in electronic transactions into international law (UN Commission on Trade Law) and the Spanish legal system. Application of semantic languages to documents has both legal and economic consequences that affect their authentication and the security of transactions. Francisco de Asís GONZÁLEZ CAMPO analyzes the content of Act 18/2011, which regulates the use of ICT in the Spanish judicial system, and, more specifically, the normative concept of "court electronic document" (documento judicial electrónico). The use of such media in courthouses raises new problems to be identified and solved from a legal and procedural point of view.

The third section, Mediation, ODR and Crowdsourcing, contain the largest body of papers. It is strictly related to the current state of the art. There are some recent collective contributions in this specific field, which reflect discussions at the United Nations Commission on International Trade Law (UNCITRAL) and at the European Parliament (WAHAB, 2012). Richard Susskind (2012), in the brief preface to the latter book shows himself as clear as blunt about the future of ODR:

For long, I have described ODR as an example, in law, of a disruptive technology—one whose introduction can fundamentally challenge and change working practices of the past. For whom, though, is ODR disruptive? The harsh truth is that ODR is most disruptive for those who currently make a living from traditional litigation. (SUSSKIND, 2012, vi).

The term *crowdsourcing* has a difficult Spanish translation. It was coined by Jeff HOWE in 2006, and was initially applied to massive online problem solving and work offers (or micro-jobs). But in fact this concept hides old and well-known problems in epistemology and philosophy of science. Collective construction of knowledge, structure and process of collective reasoning, aggregate information integration and the emergence of collective properties are some of them (POBLET; NORIEGA; PLAZA, 2014). The development of processes of dialogue, negotiation and procedures online has converged with massive information collecting and processing, and with collective approaches to citizen participation in decision-making. It seemed a natural movement, thus presenting the mass resolution in the network in connection with the problems raised by collective processing and the emergence of so-called *big data*, the massive presence of data and metadata on the web.

Graham Ross opens up this session with a paper about the unintended consequences that may result from the implementation of the European Directive on Alternative Dispute Resolution [Alternative Dispute Resolution, ADR, 2013/11/EU] and the Regulation on Dispute Resolution Online [Online Dispute Resolution, ODR, European Regulation 524, 2013]. Actually Graham Ross, a mediator with the practical experience of *The Mediation Room* and *Modria*¹⁰ points at tensions occurring through international and EU regulatory procedures that still lack of an agreed and clear regulatory framework. His article thus provides the framework in which to articulate the different lines outlined in the following articles. The scope and setting of mediation and ODR, then, as it previously happened to ADR in the nineties of the last century, are not without tensions.

Eduardo VÁZQUEZ DE CASTRO delves into regulatory, technological and cultural boundaries of Online Dispute Resolution focusing on the interpretation of Directive 2008/52/EC of the European Parliament and the Council on certain aspects of Mediation in Civil and Commercial Matters. The author also discusses some legal features of the

¹⁰ <http://www.modria.com/>
implementation of the Directive in Spain.\textsuperscript{11} The article by Isabel VIOLA DEMESTRE also aims analyzing the Spanish legislation governing electronic mediation and arbitration, with particular regard to the requirements to be met to ensure trust building and security of communications. Thus, protection of confidentiality is an important objective to be treated with special care. Josep SUQUET CAPDEVILA focuses his discussion, as Immaculada BARRAL will do later on as well, on the sphere of consumer protection. He introduces online mediation as a specific ODR method, and performs a review of the available technological tools (in information, mobile, and artificial intelligence technologies).

A theoretical approach from the professional experience of mediation follows. Franco CONFORTI, from AcuerdoJusto\textsuperscript{12} defends the strict conceptual separation between ODR and mediation online both from legislative (regional, national and EU) and practical points of view. According to this perspective, online mediation would not be a type of ODR, nor would ODR be a type of online mediation. Josep REDORTA chooses another approach. Based on the literature on conflict analysis and his own experience and qualitative approach, he builds up an elaborate conflict morphology to propose a methodology — CAT © (Conflict Analysis Typology)— based on patterns. CAT© analysis can be the basis for the design of intelligent instruments, a diagnostic tool for the automated management of the various types of identified conflicts.

From the synergy between law and artificial intelligence, Davide RUA CARNEIRO, Paulo NOVAIS and Francisco ANDRADE propose a design technology focused on ambience intelligence. This team from the University of Minho proposes the insertion of sensors into mobile devices to enrich the process of communication and decision making in ODR. In a second article that refines and supplements the former perspective, Cristiana TEIXEIRA SANTOS, Francisco ANDRADE and Paulo NOVAIS respond to possible criticisms and analyze the relevance, applicability and adequacy of privacy and data protection regulations in ambience intelligence technology-based systems (AmI).

Papers that follow are also exploring new avenues of renewal of conflict resolution online. Dusko MARTIC points out the conditions that must be met by ODR systems as web

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\textsuperscript{11} Specifically, Ley 18/2011, de 5 de julio, reguladora del uso de las tecnologías de la información y la comunicación en la Administración de Justicia (ESPAÑA, 2011); Real Decreto-ley 5/2012, de 5 de marzo, de mediación en asuntos civiles y mercantiles (ESPAÑA, 2012a); and Ley 5/2012, de 6 de julio, de mediación en asuntos civiles y mercantiles (ESPAÑA, 2012b).
\textsuperscript{12} <http://www.acuerdojusto.com/Mediar_OnLine_2.0.html>
\end{footnotesize}
services. He especially analyzes the conditions of lack of incentives and freemium services in open access free services, and he criticizes some of the positions about it held by new European legislation and the Working Group III of UNCITRAL. Finally, Buddhadeb HALDER reviews the history of the emergence of crowdsourcing processes and analyzes their pros and cons, finding no reason at the end to deny support to this kind of empowerment of citizens.

Finally, the contributions from the two editors: Immaculada BARRAL highlights the basic lines of the regulation of consumer conflict resolution by electronic means (especially building trust), the creation of a European ODR platform, and the analysis of the suitability and sustainability of electronic means based on the monetary amounts under discussion. The article makes clear that, in terms of consumer protection, the EU approach did not opt for an alternative way of dispute resolution (i.e. mediation), but it rather choose to stem from the already existing array of procedures in different states members (mediation, arbitration, ombudsmen, etc.).

Pompeu CASANOVAS recovers this thread of criticism to European nation-states regulations. He closes the series with a reflection on the ethical principles for online dispute resolution (ODR), compared with their presence in other fields (as privacy by design, crowdsourcing, open linked data ...). A clearer distinction between ethics in mediation and ethics of mediation allows the redefinition of the notion of public space required by the new stages of the Internet and the semantic management of its contents, without neglecting the evaluation of applicable principles in ODR, notably fairness (LODDER; ZELEZNIKOW, 2010).

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mediation and ODR market in Europe and Spain, advanced research in Artificial Intelligence in the so-called Agreement Technologies (Agreement Technologies), and institutions such as Chambers of Commerce, Consumer Agencies, and European Offices.

The reader will find that there are at least four dimensions to be taken into account in the articles: (i) Professional (describing the experience and strategic positions of companies and professional mediators), (ii) Academic (from actual research projects), (iii) Technological (on languages, tools and techniques used), (iv) Legal (on the problems and interpretations of positive law and other regulation). These aspects are present in one way or another in all papers, but to a different extent, according to the main approach of the authors.

After the original submissions, followed an ongoing work of rewriting and seeking the improvement of papers has followed. Besides the two editors of this volume, this process has also been monitored by Aires José ROVER and Paloma Maria SANTOS, director and general editor respectively of Democracia Digital e Governo Eletrônico. Our thanks go to them, since their encouragement and careful editing work has been fundamental. Without the rigorous and neat care of Paloma Maria Santos, many final paper versions would not have reached their present form. Finally, we wish to acknowledge the excellent reviews carried out by the experts who have collaborated with us in this issue. Our thanks, then, for:

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4 References


