Adapting the European Legislation Identifier (ELI) Ontology in the Albanian Legal Publishing System: A Possible Solution Model

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ABSTRACT

Access to legal documents play a key role in the functionality of governmental and non-governmental bodies in national level as well as to international level. The Albanian Official Publishing Centre is responsible for publishing the Official Journal of the Republic of Albania, the Bulletin of Official Notifications and the updated Legal Acts, both hardcopy and electronic-copy. Actually, the e-publishing process offers only *pdf* versions of the Official Journal, accessible via web without any extra searching engine integrated on it. The European Legislation Identifier (ELI) is established in the context of the European Forum of Official Gazettes. This paper aims to present the results of our study on attempts for giving a solution to the implementation of the ELI ontology in the context of Albanian Official Journal and other types of publishing Legal Acts, by contributing as an initial study that can be used as model to join EU legal system.

Keywords: European Legislation Identifier, Metadata, Legal Documents, E-Publishing System

I. INTRODUCTION

The Albanian Official Publishing Centre (AOPC) has been established in 2000. It is responsible for publishing the Official Journal of the Republic of Albania, the Bulletin of Official Notifications and the updated Legal Acts [1].

The European Legislation Identifier (ELI) was established in the context of the European Forum of Official Gazettes [2] and supported by European Union in the framework of e-Law projects [3]. ELI is a semantic web solution that enables direct access to specific national legislation through structured, flexible identifiers [4] and is developed based on three main pillars [5]:

1. Uniform Resource Identifiers (URIs), used for identification of legal legislation on web

2. Metadata, used to describe the legal resources and acts

3. Publication of metadata based on ELI ontology

Some countries, like Italy have chosen to implement the whole ELI pillars in single stage, while some other, like United Kingdom had implemented ELI, in different steps.

Based on ELI implementation methodology guideline, when we consider the Albanian case, we conclude that it fits to the scenario 1, "Legislation is at least held electronically, but metadata is not available on the website". In these conditions, a thorough study on types of legal documents and publishing procedures necessary to accomplish such task will help the Institution to identify the capture requirements for HTTP URIs, designing the URI template, and capture the requirements for metadata. The 'Old' Legal Acts that belong to the period previous to '2000 have not

been part of this research study. Treating that part of information we have concluded that it asks for another approach.

II. METHODS AND MATERIAL

A. Legal Sources and Technology Employment

A legal resource is any form a legal act or any component of it; such as a section, an article or a paragraph [6].

The Legal sources introduced in the study were:

- Examples of original legal documents that have been published on the Official Journal of the Republic of Albania, by selecting different types of legal acts such as: Presidential decree, Laws, decisions of CoM, etc., by having a time span from 2000-2016.
- Law 78/2014, "On the organization and functioning of the Official Publishing Center" and all other relevant legal acts stemming from it.
- The ELI technical implementation guide, ELI implementation methodology guideline and other related documents.

To identify the most suitable HTTP URIs structure and the other pillars in the first stage we have created different prototype templates based on the ELI component list. While, in the second stage of the study the results of each prototype model were compared. Based on the result we came to a final proposal for a structured model.

Albanian Legal Publishing System

The AOPC is responsible for publishing and giving access to the general public via web mode to:

1. The Official Journals (OJ),
2. The Bulletin of Official Notification (BON)
3. The Individual Legal Acts (in their updated version)

The key elements that identify authenticity and are unique for the mentioned publishing type forms are: the publishing document type, the year, and its number and date. For OJ and BON, every year the numbering system starts with number 1.

Meanwhile the same rule was implemented to theLaws publication after the 2013, as well as to the other legal acts types.

The legal acts included in the OJ belong to different types, can be approved/passed by different institutions and every type has its own data elements. The following table presents the types of Individual Legal Acts published by AOPC:

Table 1: List of legal acts publishing on Albanian Official Journal

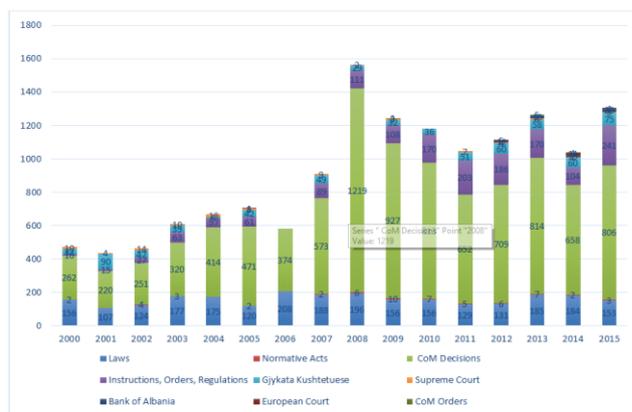| Type of legal act	Approval Institution
Decree	The President of Republic
Normative Act	Council of ministries
Law	Parliament
Decision	Council of Ministries, Ministries and other institutions
Orders	Council of Ministries, Ministries and other institutions
Resolution	Parliament
Instructions	Council of ministries, Ministries and other institutions
Regulation	Council of ministries, Ministries and other institutions
Unified Decisions	Supreme Court
Application for expropriates	Ministries
Request for notifications	Courts

Figure 1: The legal acts chart published on new Albanian legal publishing system

There is no specific rule that will decide how many OJ can be published in a certain working day, which mean single publishing OJ, or more than one OJ, but is not the case to say that none official journal is published in a working day.

Mapping ELI pillars to the local situation

The first pillar of ELI, URI, is comprised of different components, which have not a predefined order, and all are optional. It has the following structure:

/eli/ {country}/ {agent}/ {sub-agent}/ {year}/ {month}/ {day}/ {type}/ {natural identifier}/ {level 1…}/ {point in time}/ {version}/ {language}

Using these components, each publisher is able to create its' own URIs. An important criterion to the identifiers of Legal information is that they shall be easy understood and used by its user.

In order to get a good solution in this step we have use the different technics such are: interviews with personnel that have a long experience in the legal publishing system, creating different prototyping and studying the successful cases.

In the Albanian case, the components required to uniquely identify the OJ and BON are the year and its number, since it starts with number 1 every new comingyear. The development of URI for OJ and BON must have the following structure:
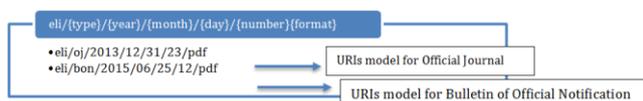

Figure 2: URI structure for the Albanian OJ and BON.

Albanian Official Journal number 138, of year 2016, published on 27.07.2016					
{type}	{year}	{month}	{day}	{number}	{format}
oj	2016	07	27	138	pdf
Full URI	http://www.botimezyrtare.gov.al/eli/jo/2016/07/27/138/pdf				

Figure 3: URI pattern applied in Albania OJ and BON - example

The Individual Legal Acts are uniquely identified by the legislation type, the institution that have enacted or approved the act, its year and number. An individual published act may have different statuses in a different point in time, such as approved, changed or abrogated. In the following table are listed the possible values of these ELI components:

Table 2: List of ELI components and their corresponding format

Component name	Values	Format
Type	Decree	dekret
	Normative Act	aktnorm
	Law	ligj
	Decision	vendim
	Order	urdher
	Instructions	udhz
	Regulation	rreg
	Unified Decisions	vugjl
	Request for expropriates	kpro
	Request for publication of missing people	kshzh
Agent	Name of institutions	Institution's Acronyms
Year	2014	yyyy
Month	01,02,…, 12	mm
Day		
Number	234	Digit number
Consolidated Version	original	Lo
	changed	Ln
	abrogated	La
Format	html	html
	pdf	pdf
	pdf signed	pdf e-signed
Point in time	22.05.2013	dd.mm.yyyy
Language	Albanian	al
	English	en

A possible model that can be used as URIs for individual legal acts is:

/eli/ {type}/ {agent}/ / {year}/ {month}/ {day}/ {natural identifier}/ {version}/ {point in time}/ {language}/ {format}

http://www.botimezyrtare.gov.al/eli/ligj/2013/08/23/65/LO/23.10.2015/al/pdf
http://www.botimezyrtare.gov.al/eli/vendim/2011/04/21/65/La/03.10.2015/al/pdf

Until now, the AOPC does not divides the legal acts in subpart such are the article levels. If they decide to implement it, they have to insert the "level" component in their URIs.

III. RESULTS AND DISCUSSION

ELI Metadata

The second pillar of ELI, the metadata are used to describe the main properties of legal acts and are the result of compromises for the purpose of publishing metadata about legal resources on the web. They do not intend to serve as a data model to describe themselves [6]. Their development is based on the functional requirements for bibliographic records FRBR standard, which is constituted by three main classes: LegalResources, LegalExpresion and Format. Each class has its own properties and only few of them are obligatory. In the table 4 is presented a metadata model for the OJ and BON.

Table 4: Eli metadata that can be used for OJ and BON.

Official Journal; Bulletin of Official Notifications		
Eli: LegalResource	Eli: LegalExpression:	Eli: Format:
• type document • is_realized_by • date_publication	• is_embodied_by html, pdf) • language • realizes • title	• **format** • publisher • embodies

These metadata is needed to incorporate in order to replace the html pages with *xhtml*.

System functional requirements

The system must offer two different user interfaces, one for internal and other external users. The Internal interface should have integrated the following functionality:

- User authentication and authorizations
- Data entry with xml transformation integrated services
- Data export from xml to relational databases: versioning and editing textual legal acts
- Conversion from xml to pdf: especially for publishing pdf versions OJ and BOM
- Simple and detailed search engine options

Discussions

In this article are proposed different URIs structures for different types of legal publishing documents such are OJ, BON and every individual legal act is presented on table 2. Also, we have proposed the metadata model for OJ and BON. Further more tests needed to run which will identify the way that will be used for connecting the National Legislation with EU Legislation Portal. Finally we can raise the question - How can we include the "transposes", "transposes by" properties to legal acts?

IV. CONCLUSION

Since the AOPC efforts to develop a new legal publishing system it is very important to consider the ELI implementation. Implementing ELI offers a number of benefits such as:eases over the information access by the public, identifying in unique way the different legal acts in national and European geographical space, sharing of legal information, creating the metadata schemeable to provide readable information by humans and machines, etc.

The model proposed is fully compatible with the Albanian legal framework in legal publishing and ELI technical specification too.Like any other e-system implementation, implementation of ELI in the Albanian legal system can have more than one solution and is dependedon the financial, technological capacity and human resources available. At the end, we do not aim to suggest any particular commercial or noncommercial platform for implementation, but only to propose an alternative model that can be used with full success.

V. REFERENCES

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