USING E-MAPS & SEMANTIC ANNOTATION FOR IMPROVING CITIZENS' AND ADMINISTRATIONS' INTERACTION

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Presentation Structure

1. Introduction
2. Theoretical Background
3. Basic Concept
4. Platform Functionality
5. Platform Architecture
6. A Pilot Application
7. Conclusions

Introduction

- The high potential of modern ICT
- for supporting citizens' and administrations' interaction
- for the formulation of better public policies has been extensively recognized,
- resulting in a rapid development of the e-participation domain in the last decade.
- Extensive research is required for developing (ICT) platforms that exploit and realize this potential to the highest possible extent
- → higher quality and quantity of interaction

Introduction

- This paper describes an advanced ICT e-participation platform for this purpose,
- aiming to improve the quantity and quality of interaction among citizens, and also with public administrations,
- concerning the formulation of public policies and decisions on environmental and energy issues,
- FEED (Federated e-Participation Systems for Cross-Societal Deliberation on Environmental and Energy Issues) project

Theoretical Background

- Many public policy and decisions belong to the ones termed as ‘wicked problems’ Rittel and Weber (1973),
- being characterised by high complexity,
- many heterogeneous stakeholders,
- with different perspectives, views, concerns and values
- and conflicts among stakeholders

Theoretical Background

- Such ‘wicked problems’ cannot be solved by formal ‘first generation’ design methodologies (based on pre-defined algorithms),
- and require ‘second generation’ ones,
- which are based on interaction, deliberation and argumentation approaches (Rittel and Weber 1973).
- These approaches include several circles of deliberation,
- in which the stakeholders interact, each of them raising issues concerning the problem under discussion,
- proposing solutions and arguing about advantages and disadvantages of them,
- until a complete and accepted view of the problem is achieved and then of the solution

Basic Concept

- In order to formulate the most effective and acceptable public policies
- it is necessary to maximize the quantity and quality of interaction, deliberation and argumentation
- among citizens - stakeholders and involved administrations.
- In this direction has been developed an advanced e-participation platform
- that enables citizens and administrations to upload geographically referenced multimedia content (e.g. pictures, videos, etc.)
- on an electronic map of the area which the public policy or decision under discussion concerns,
- so that other interested citizens or administrations can easily access and download them

Basic Concept

i) federated content, both 'internal' to it and 'external' residing in other web-sites, from various sources

ii) efficient mechanisms for accessing all this content based on maps, semantic annotation and ontologies

iii) stakeholders' interaction capabilities through forum

iv) and also through petition functionalities.

Basic Concept

- Enhancing e-Participation with supportive information from multiple sources
- Exchange of content among citizens stakeholders
- Multiple forms of information: text, maps, images, recordings, video
- Emphasis on the dynamic nature of information: some local storage, some dynamic binding
- Interconnection with existing systems in Public Administration

Basic Concept – content federation

Legal and public administration information: EU directives, national laws, local administration decisions (automatically retrieved from EUR-LEX, National Parliaments)

Research: scientific papers, books and literature (automatically retrieved from research data bases)

News: newspaper articles, press agencies reports (automatically retrieved from GoogleNews, Reuters)

Geographical Information (GoogleMaps, municipal GIS)

Citizen Interaction Information: content generated by other citizens (e.g. a video (through a mobile phone) showing a problem)

Platform Functionality – Map Module

Platform Functionality – History & Vision Modules

- The History module presents a map of an area selected by the user
- and provides controls that allow the user to see how this area has changed over time (e.g. Concerning usage or buildings)
- The Vision module allows users to run “what if” scenarios for regional planning.
- also, it allows any interested party (individual, organization, or public administration) to mark a map area
- and declare their vision concerning the development of this area in terms of industry, transport, energy, environment, etc.

Platform Functionality – Meetings & Topic Module

- The Meetings module lists webcasts associated with the topic of the deliberation (e.g. Council sessions)
- The Topic module is a text-based search page
- where the user can choose to search based on structured search terms contained in a taxonomy
- or by entering “free text”

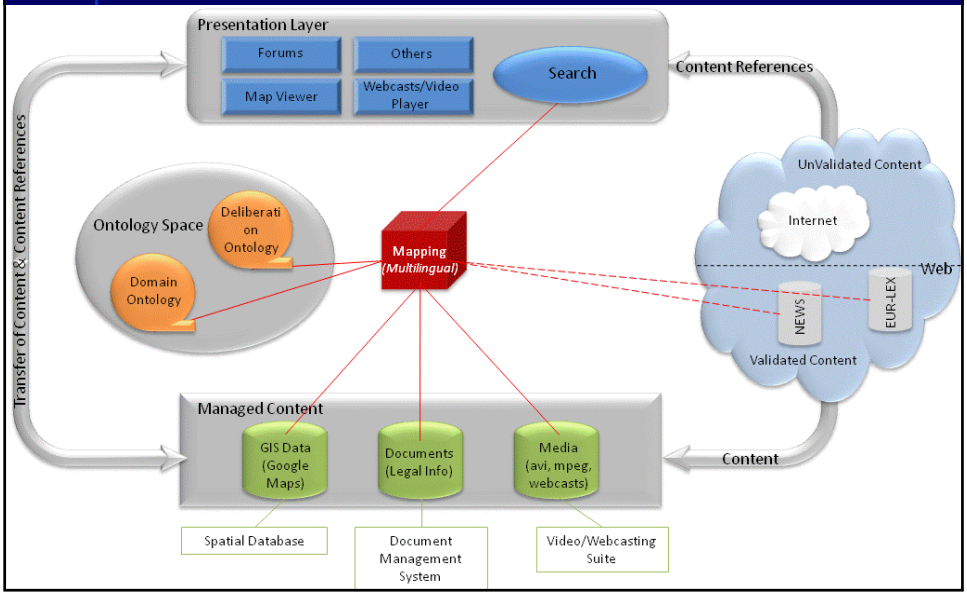
Platform Functionality – Forum Module

- The Forum module provides discussion - deliberation spaces in the form of online bulletin boards,
- where users can read existing messages on the topic under discussion in a ‘threads structure’,
- respond to any of these messages by entering a new message connected to the former,
- or create a new thread of discussion.

Platform Functionality – Petition Module

- The Petition module offers the capability to start online petitions about different types of issues
- e.g. concerning environment, city planning, etc.
- and aks citizens to 'sign' (support) it,
- in order to increase the influence of public opinion in the public policy and decision making process.

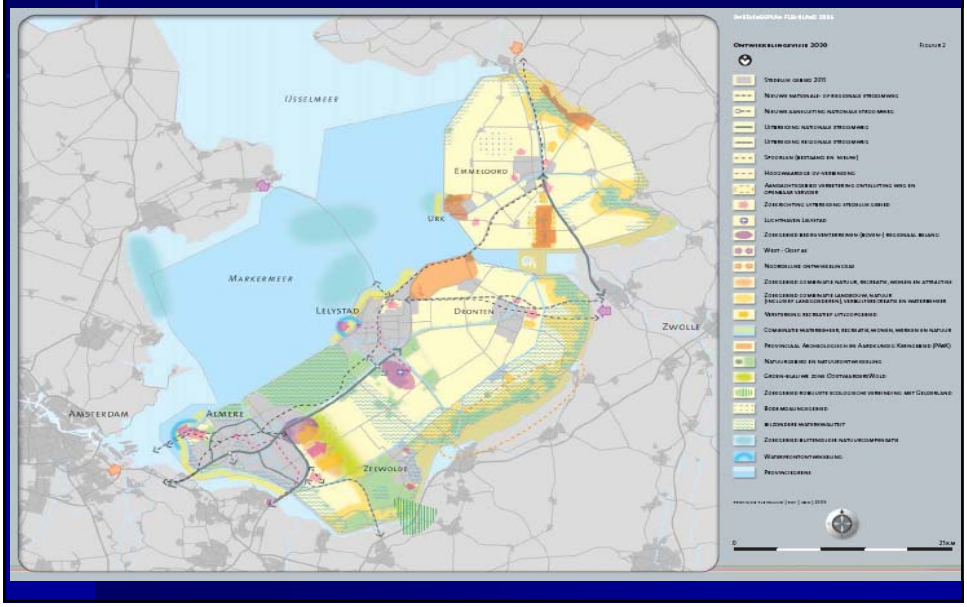
Platform Architecture



A Pilot Application

- A first pilot application we designed for testing and evaluating systematically the proposed e - Participation platform
- will take place in the Flevoland region, Netherlands.
- This is an area that was reclaimed from the sea and was destined to become land
- however, later it was decided to keep the water area intact,
- but this caused severe scarcity of land resources in the Amsterdam urban expansion area.
- Therefore critical environmental and zoning public policies and decisions are required

A Pilot Application



A Pilot Application

Concusions

- We have presented an advanced ICT e-participation platform
- developed, as part of the FEED (Federated e-Participation Systems for Cross-Societal Deliberation on Environmental and Energy Issues) project of the European Commission,
- in order to improve the quantity and quality of interaction among citizens, and also with public administrations,
- concerning the formulation of public policies and decisions, with main emphasis on environmental and energy issues.

Concusions

- The platform enables citizens and administrations to upload relevant geographically referenced multimedia content (e.g. pictures, videos, etc.)
- on an electronic map of the area which the public policy or decision under discussion concerns,
- so that other interested citizens or administrations can easily access and download them.
- The proposed e-participation platform provides federated relevant content from various sources
- and also efficient mechanisms for accessing it based on maps (by drawing an area on the map we can access all content concerning this area), semantic annotation and ontologies.
- Beyond this powerful interaction mechanism, the platform offers additional interaction capabilities through the forum and petition functionalities.

Concusions

- We expect that the capabilities provided by this platform
- can result in a significant improvement of the quantity and quality of interaction among citizens, and also with public administrations.
- In order to test and evaluate the above concepts and platform a number of pilots have been designed:
- Flevoland, Netherlands
- Greece, Great Britain and Czech Republic

Concusions

- A systematic and comprehensive evaluation of them will take place,
- based on the ‘Technology Acceptance Model’ (TAM)
- and the e-Participation evaluation methodology developed by the first of the authors (Loukis and Xenakis 2008a and 2008b, Loukis et al 2009),
- and its conclusions will be used for improving the platform and the practice of its usage