

DECIDE 2.0 – A Framework for Intelligent Processing of Citizens' Opinion in Social Media

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1 – BACKGROUND

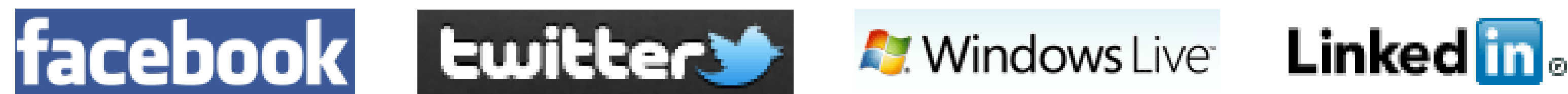
Government 2.0 refers to government's adoption of Web 2.0 technologies to socialize government services, processes and data.

GOVERNMENT 2.0 – BENEFITS

- o new ways of communication with citizens – i.e. social media
- o new opportunities for government agencies to be informed about citizens' needs and opinions through user-generated content

GOVERNMENT 2.0 – EXAMPLE TOOLS

Of interest to this research:



GOVERNMENT 2.0 – SOME TECHNICAL CHALLENGES

The integration of data streams from social media poses challenges:

- 1) magnitude of information flow – i.e. Twitter disseminates 55M tweets p/day; forces to rely on text mining (TM) and opinion mining (OM) techniques to filter noise and detect topics of community discussion
- 2) TM and OM techniques are not common practices in government
- 3) social media data streams are usually incomplete or potentially inconsistent, as citizens might have different views on a certain issue
- 4) citizens' arguments must be assessed and confronted by government officials in order to be used as inputs in government decision making processes
- 5) to build trust, some decisions made by government need to be backed by arguments when informed to citizens.

2 – PROBLEM DEFINITION

To combine context-based search and argumentation in a collaborative system for managing (retrieving and publishing) service-and policy-related information in social media tools used by governments.

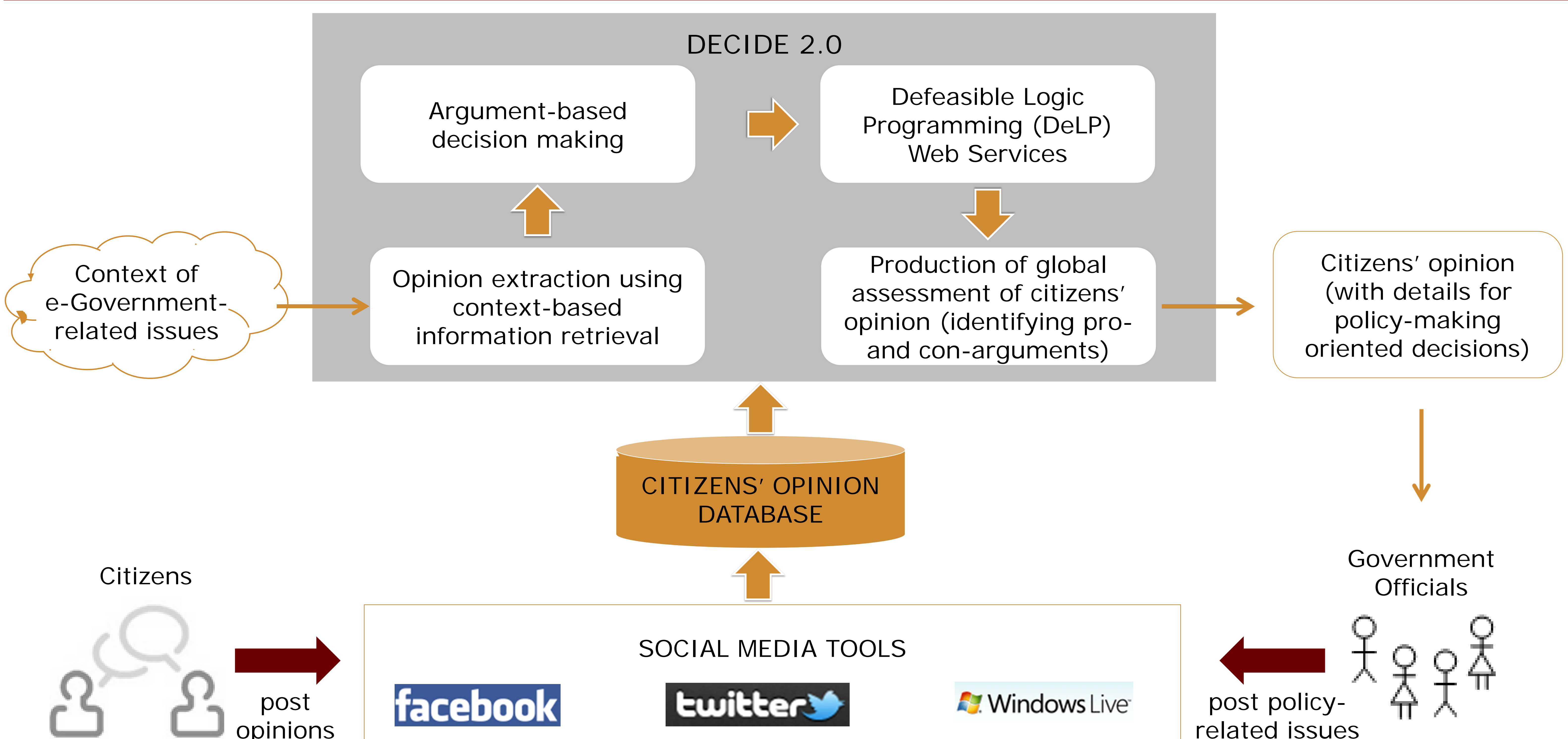
3 – PROJECT AIM

To design DECIDE 2.0 – a framework for intelligent processing of citizens' opinions in social media, based on a collaborative system operating on top of existing social networks.

4 – PROJECT GOALS

- o To implement models of trust and reputation propagation – users post information on social media whose reliability has to be assessed in order to effectively use such information for decision making.
- o To develop algorithms for integrating information coming from different sources - several users may post messages related to the same topic; accrual of information needs to be modeled properly.
- o To design effective context representations and community identification algorithms - when analyzing citizen opinions, emerging communities have to be identified, and associated contextual information is to be obtained.
- o To develop customized information models - providing targeted information to various categories of stakeholders requires having different "views" of the issues under analysis.

5 – DECIDE 2.0 FRAMEWORK



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