

# WeLEaD – Collaborative Toolkit for Learning, Engaging and Deciding

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## ABSTRACT

Open Government is a new trend in public governance, based on the principles of transparency, collaboration and participation, currently being adopted by many countries around the world including 63 members of the Open Government Partnership. Operationalizing such principles requires developing certain capabilities among citizens and relevant government actors. For example, participation requires citizens to be informed and engaged, and achieving this requires government to build capabilities in using appropriate tools for informing and engaging. This poster paper outlines a research work in progress for developing an e-Participation toolkit called WeLEaD - Collaborative Toolkit for Learning, Engaging and Deciding. The toolkit will comprise an integrated set of advanced e-participation tools, based on the peer-production approach to collaborative teaching and learning: 1) to help citizens learn from each other about relevant issues on the public policy agenda; 2) to engage policy-makers, government executives, citizens and other non-state actors in informed discussions on how to advance this agenda; and 3) to reflect the outcomes of such discussions, including citizen views and opinions, in government's policy-making processes. The toolkit will also include technical and organizational guidelines for conducting e-Participation initiatives, including the use of such tools.

## Categories and Subject Descriptors

K.4.2 [Computers and Society]: Social Issues; I.2.5 [Artificial intelligence]: Programming Languages and Software

## General Terms

Algorithms, Measurement, Design, Human Factors

## Keywords

e-Learning; e-Participation; Citizen Participation; Collaborative Learning; Collaborative Participation; FLOSS

## 1. INTRODUCTION

In 2009, USA President Barack Obama issued a Memorandum for Heads of Executive Departments and Agencies announcing that his Administration was committed to “creating an unprecedented level of openness in Government”. His aim was to “work together to ensure the public trust and establish a system of transparency, public participation, and collaboration”.

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To establish a system that promotes transparency, collaboration and public participation, governments are required the willingness to learn, engage and decide with and for their citizens. However, such system cannot be established only by the will of the governments; citizens need also to learn about the public issues that are being discussed and to be engaged in governments' decisions. Citizens' engagement refers to a deliberative process through which groups of citizens in representation of their communities learn, express their points of view, and discover common ground to influence government decision-making [1]. Although many governments are engaging their citizens and empowering them to participate, the lack of advanced e-Participation tools represents a challenge. Addressing the challenge mentioned above, this paper presents a research work designed to develop WeLEaD – an e-Participation toolkit designed based on the peer-production model applied to collaborative teaching and learning in participation processes. The aim of WeLEaD is to inform, engage and enable citizens to contribute to policy- and government decision-making processes. The expected contribution is to provide a set of advanced, automated and open-source tools for e-Participation. The rest of this paper is structured as follows. Section 2 explains the foundations for this project. Section 3 introduces the research questions, the research methodology defined for the project and the expected contributions. Finally, Section 4 illustrates two possible applications areas.

## 2. BACKGROUND

The research work presented in this paper emerged from two previous research projects investigating: 1) Peer-production approaches to eLearning (PPAeL), focuses on models, methods and frameworks for commons-based peer-production and technology-enhanced collaborative teaching and learning; and 2) an application area of Electronic Governance for Sustainable Development focused on e-Participation (e-Part).

The PPAeL project aims at investigating how the peer-production model can enhance the process of collaborative teaching and learning [2]. We believe that introducing ideas of a peer-production approach in e-Participation initiatives could facilitate achieving the goals of public involvement. Preliminary results of the PPAeL project were published in [3].

The e-Part project aims at developing a set of organizational and technical guidelines to facilitate citizen participation based on analyzing the state of research and practice on e-Participation initiatives. Lessons learnt from the e-Part project, provide a good insight for grounding a new approach for designing advanced tools for e-Participation initiatives. Results of the EGOV4SD foundational project were published in [4][5] and results of the e-Part project are documented in [6].

### 3. RESEARCH WORK

The following sections present the research questions, the research methodology and expected contributions of this work.

#### 3.1 Research Questions

The WeLEaD project addresses the following three research questions: 1) what are the necessary requirements for applying collaborative learning techniques in the area of citizen participation?; 2) what are the existing tools and techniques from collaborative learning environments (CLEs) that could be applied to facilitate the learning process required to engage citizens in e-Participation initiatives?; and 3) what computational solutions - algorithms, ontologies, models or other artifacts can be developed or used to provide a toolbox for e-Participation based on the WeLEaD approach?

#### 3.2 Research Methodology

To address the research questions and develop the tools, the following research methodology has been proposed (see Figure1):

- 1) **Collaborative Learning Environment (CLE) State-of-Art** – determining state of research and practice on computational techniques applied to CLEs.

- 2) **E-Participation State-of-Art** – determining state of research and practice on organizational and technical guidelines and computational tools applied for e-Participation initiatives.
- 3) **Requirements** - defining functional and non-functional requirements for advanced e-Participation tools and identifying core basic requirements, based on the findings obtained in 1) and 2).
- 4) **Prototype** – developing software prototypes to showcase the e-Participation tools designed based on the WeLEaD approach following core basic requirements identified in 3).
- 5) **Guidelines** – providing a set of technical and organizational guidelines to conduct e-Participation initiatives following the WeLEaD approach based on findings from 1) and 2) and experiences gained from 4).
- 6) **Pilot Test** – testing the WeLEaD toolkit to conduct an e-Participation initiative in a controlled environment using the prototype and the guidelines produced in 4) and 5) and improving the toolkit based on the received feedback.
- 7) **Case Study** – using the WeLEaD toolkit in a real e-Participation initiative conducted by a local government agency and supporting the agency through the process.
- 8) **Dissemination** – sharing lessons learnt from the project through research publications, policy recommendations and courseware.

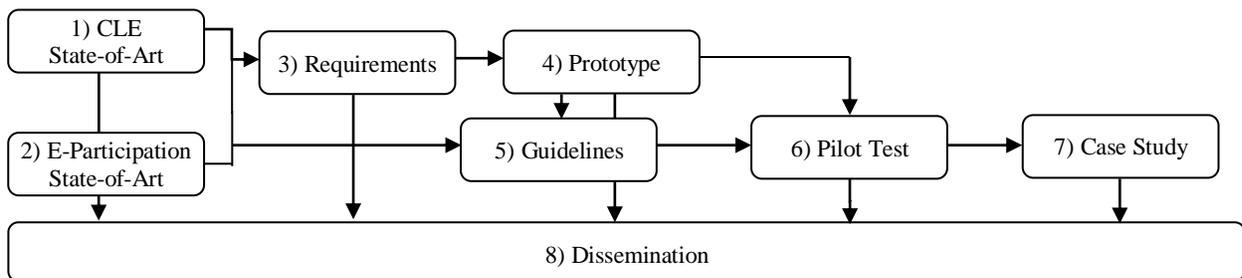


Figure 1. WeLEaD Research Methodology

#### 3.3 Expected Contributions

The WeLEaD project is expected to produce two main contributions: 1) providing added value to the provision and usage of citizens' opinions in government-decision making processes; and 2) providing intelligent support to citizens' empowerment.

### 4. APPLICATIONS

Two global initiatives provide scenarios for the demand and the application of e-Participation tools, such as those envisioned by WeLEaD. On the one hand, the OG Partnership aiming at making governments better through institutions that empower citizens and are responsive to their aspirations [7]. On the other hand, the UN development agenda for Post-2015 [7], driven by: 1) "Leave no one behind", 2) "Build peace and effective, open and accountable institutions for all" and 3) "Forge a new global partnership", aiming at making societies inclusive, bringing together communities, guaranteeing that institutions are open and accountable, and engaging citizens and institutions in global partnerships. For both initiatives, the WeLEaD toolkit constitutes essential elements to enable governments to achieve their goals.

### 5. ACKNOWLEDGMENTS

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### 6. REFERENCES

- [1] Lukensmeyer, C.J. 2013. *Bringing Citizen Voices to the Table: A Guide for Public Managers*. Jossey-Bass.
- [2] Cerone, A. and Fong, S. 2011. *Peer-Production Approaches to e-Learning ( PPAeL ) Project Proposal*.
- [3] Fernandes, S. et al. 2013. FLOSS Communities as Learning Networks. *Int. Journal of Information and Education Technology*. 3, 2 (2013), 278–281.
- [4] Estevez, E. and Janowski, T. 2013. Electronic Governance for Sustainable Development — Conceptual framework and state of research. *Government Information Quarterly*. 30, (2013), S94–S109, available at: <http://www.science-direct.com/science/article/pii/S0740624X12001487>.
- [5] Estevez, E. et al. 2013. Electronic Governance for Sustainable Development – How EGOV Solutions Contribute to SD Goals ? (2013), 14<sup>th</sup> Annual Conf. on Digital Government Research (dg.o), Canada, ISBN 978-1-4503-2057-3, pp.92–101.
- [6] Estevez, E. et al. 2013. *e-Macao Report - Electronic Governance for Sustainable Development - Citizen Participation Framework*.
- [7] Open Government Partnership: 2012. <http://www.opengovpartnership.org/about>
- [8] UN System Task Team on Post-2015 UN Development Agenda 2012. *Realizing the Future We Want for All Report to the Secretary-General*.