

# MyUniversity: eParticipation and decision making for higher education

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**Abstract:** MyUniversity is a European project to foster the eParticipation in European higher education institutions and allow their members to influence the final decision making performed by the institutions' authorities. A framework, composed of the two existing interactive tools Gov2Demoss and Pnyx.eVoting, and a methodology to manage eParticipation initiatives have been created for this purpose. This paper studies the eParticipation obtained in 14 European universities where the framework and methodologies have been applied. The paper also describes the developed project framework, the methodology, the trial, the first preliminary participation results, and analyzes the main conclusions and lessons learned from them.

**Keywords:** eParticipation, eDemocracy, managment, framework, decision making, trial

## 1 Introduction

The Information and Communication Technologies (ICT) have become ubiquitous and the number of applications taking advantage of them is incessantly increasing. Citizens are more connected than ever before. The current context is an opportunity to move towards a scenario where citizens become more involved in the decisions taken for the management of institutions and governments. In this context the European Union (EU) created, within the Competitiveness and Innovation Framework Programme, the ICT Policy Support Programme which includes the area *ICT for government and governance* and objective 3.5: *e-Participation, empower and involve citizens in transparent decision-making in the EU*.

MyUniversity is a European project in the mentioned EU program. The project fosters the eParticipation in higher education institutions enabling their members to influence the final decision making performed by the authorities. A framework and a methodology to manage the eParticipation initiatives have been created for this purpose. The framework, based on the integration of Gov2Demoss and Pnyx.eVoting [RBO03], provides a set of configurable participative tools, such as News, Polls, Letters to officials, Discussions, ePetitions, or eConsultations. The methodology defines a number of teams and procedures to manage the lifecycle of the initiatives.

This paper studies the eParticipation obtained, during a trial with real users and topics, in

14 European universities where the framework was deployed and the proposed methodologies applied. It is organised in five sections. Section 2 describes the background. Section 3 presents the framework and methodology. Section 4 presents the trial, preliminary participation results and lessons learned. And Section 5 analyzes the main conclusions.

## 2 Background

In addition to MyUniversity other eParticipation projects have already taken place in countries within [TLT07, PTT10] and outside [PK08] Europe, but they are not specifically devoted to universities. eParticipation has attracted attention and has grown during the last decade, a complete survey [SR07] has been written by Sanford and Rose. The taxonomy of the eParticipation processes [TLT07, Wim07] and research [LCP<sup>+</sup>10] has also been studied in the context of the DEMO-NET and CROSSROAD European projects.

The MyUniversity framework is based on Gov2Demoss<sup>1</sup> and Pnyx.eVoting [RBO03]. Gov2Demoss is an open source eParticipation platform, developed by Gov2U, that provides an efficient channel for participation and communication between institutions or organizations and their communities through Internet. The platform allows the institutions to manage information, directly interact with the voters and gauge public opinion. The platform was awarded in 2006 with the *eGov Good Practice Label* by the European Commission. The software includes a set of modules to undertake an entire eParticipation process that can be enabled as needed. Pnyx.eVoting is a secure voting and eConsultation platform developed by ScytI to carry out secure elections, citizen consultations, surveys, etc. It supports different types of election lists and it is easy to customize for specific projects. Pnyx.eVoting is based on a unique and patented cryptographic protocol [PMR07] that, combined with physical and logical security measures, provides strong security and confidence levels. This tool has been awarded with the Information Society Technologies Prize granted by the European Commission in 2005.

## 3 MyUniversity project

MyUniversity provides the needed ICT means to reach out to all university's members and stakeholders for their active eParticipation in the decision making process. This section describes the framework and the recommended eParticipation initiatives' management.

### 3.1 The framework

MyUniversity is designed to be deployed in a global context composed by many universities. Nevertheless, eParticipation is supported both at local and global level. That is the

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<sup>1</sup><http://www.gov2demoss.org>

reason why it is hierarchically structured as a global portal, called SuperPortal, and an individual portal for each participant university. Each individual portal instance is administered by the university that it represents. It can be configured to provide a set of services through the following set of tools [mu-12a]:

- **News/Articles:** The portal allows enabling a section in the website to show news or articles submitted by authorized users. The news editor tool is also provided.
- **Calendar:** Shows the events available to all the portal visitors. The visualization is intuitive and the presentation format configurable. Events are submitted by registered users and are put on hold for the corresponding portal administrators' approval.
- **Newsletters:** The portals may include a newsletter section where the users can subscribe. Independently of this, the newsletter is directly readable in the website.
- **eProcesses:** The participation of users in different topics is organized as mini-sites within the portal. These support per user and per group access permissions and include a description, a document repository and an optional set of tools: 1) *Map* shows a geographical point or area associated to the discussions. 2) *Discussion* is a forum organized in one or more categories that may include one or more threads where users give and read opinions. It supports subscription for e-mail notification of new posts. In addition, participants can rate posts by using the three colored icons and report non-appropriate posts to the moderator. 3) *Calendar* shows the events associated to this particular process. 4) *Articles* is wiki-like area where users can collaboratively contribute creating documents associated to the open process.
- **ePetitions:** Allow registered users to publish an ePetition that requires certain support to be accepted. After moderator's acceptance, the ePetitions are shown in the website and any authorized participant can support them. The list of supporters is public.
- **Letters to Officials:** Allows the authorized participants to post a letter to an official, i.e. a representative or a person responsible of some policy decisions. The letters are reviewed before publication, then the official publishes the answer to the website.
- **Polls:** Tool for asking the website visitors about a specific topic with a set of possible predefined answers. No registration is needed to participate or access their results.
- **Social networks integration:** MyUniversity's users can share some contents published in the website through social networks such as Facebook or Twitter.
- **eConsultation:** Allows users to give their formal opinion on certain subjects. The consultations are composed of a question and a set of possible answers based on predefined lists or free text. After a user cast its opinions it receives a receipt and a control code, which are cryptographic proofs of the answers submitted.

The framework also includes automatic translation of the whole website using the Google Translate<sup>TM</sup> translation service. The framework is developed using web technologies and based on a customized Gov2Demoss and Pnyx.eVoting tools for university environments.

### 3.2 eParticipation initiatives management

The publication and execution of eParticipation initiatives is a non trivial process that requires the consideration of many aspects. Therefore a project methodology [mu-13] to manage the complete lifecycle of the eParticipation initiatives is proposed.

Three teams with different roles are defined. First, the Trial Management Team (TMT), in charge of engaging stakeholders and manage the different initiatives. TMT is composed of at least a *Bologna expert*, a *portal administrator*, a *technical expert* and a *communication expert*. Second, the Topic Development Team (TDT), in charge of reviewing the topic proposals received from the stakeholders and writing a topic summary with specific fields. And third, the Leadership Team (LT), in charge of approving the topics proposed by TDT and send them to the TMT.

The initiative management lifecycle defined has the following phases:

- **Planning:** It comprises the selection of the topic by TDT, its approval by LT, and engagement of the stakeholders by TMT. Examples of stakeholders are university students, university staff and university management staff. The selection of the topics starts with a topic proposal summarised by TDT. The summary evaluates the proposal based on the following criteria: whether it involves a decision making process, stakeholders identified, relevance of the topic, target population, topic structure, European aspect of the topic, and Bologna aspect. Then, LT evaluates the topic summary and approves or rejects it. If it is approved it is sent to the TMT that will take care of engaging the stakeholders and publish the initiative when considered appropriate. It is worth pointing out that when the topic proposal comes from research made by the TDT, the participative process is considered top-down. While when it comes from suggestions of the final users the participative process is considered bottom-up.
- **Design:** The participatory process related to the eParticipation initiative is prepared. This includes content used during the participatory process and content to promote the participation in it.
- **Execution:** The initiative is promoted, the process is open, moderated and closed by TMT, and the results are gathered and shared with the participants.
- **Institutional response:** The eParticipation initiative conclusions are provided to the decision makers in order to trigger a response.
- **Evaluation:** The success of the eParticipation initiative is evaluated according to the criteria chosen during the design of it.

This is the typical workflow for local eParticipation processes. Cross-border eParticipation initiatives are promoted at local level at several universities, and then promoted to the SuperPortal for global eParticipation. In this case there is an additional team called SuperPortal Management Team.

Activity	Top-down approach	Bottom-up approach
Decision makers involvement	Engaged a priori as a factor to launch the eParticipation initiatives	Engaged throughout the process execution and mainly involved because of the obtained participation
Topics selection	Mainly selected by the decision makers	Significant contribution of the potential participants
Immediate objective	Decision making influenced by feedback got from the initiatives	Community building for later structured and result-oriented processes
User identification	It is a strong requirement	Required, but no tight constraints, e.g. no real name needed, to avoid negative impact in the participation.
Portal setup	Heavy process due to legal requirements	Light process since there are no strong legal requirements

Table 1: Trial setup approaches

## 4 Trial and participation results

### 4.1 Trial

A trial was undertaken between April 2011 and May 2012 [mu-12b, mu-12c]. A total number of 14 universities from different countries participated on it: Autonomous University of Barcelona (UAB), University of Barcelona (UB), Universitat Politècnica de Catalunya (UPC), University of Girona (UdG), University of Lleida (UdL), Slovak University of Agriculture in Nitra (SPUVN), Universidad Rey Juan Carlos (URJC), Stockholm University (SU), University of Presov (PU), International Business School Bulgaria (IBS), University of National and World Economy (UNWE), University of León (UL), University of Vilnius (VU) and Slovak University of Technology in Bratislava (STU).

The trial was locally coordinated by the trial management team. A number of stakeholders were usually involved: students, students' union, council or association, staff, management staff, department leaders, academic council, or Bologna experts.

Two different opposed approaches were observed in the trial setup (Table 1): top-down and bottom-up. The most representative cases of the top-down approach are UAB, UB, UPC, UdL and UdG trials, the ones of the bottom-up approach are SPUVN, PU, UV, UL and STU trials, and URJC, IBS, SU and UNWE are a mix of both. The topics selected are mainly related to: Bologna process, European mobility programmes, national high education rules, high education local matters, university life and MyUniversity portal usability.

### 4.2 Participation results

During the trial period a total of 136 eParticipation initiatives were launched (Figure 1). PU, SPUVN, URJC and UV were among the most active universities. The eParticipation tools sorted by usage were the Discussion, the Poll, the ePetition and the eConsultation with 113, 41, 4 and 1 replies respectively. Around 74% of the initiatives were local topics, 16% were related to European topics and 10% were related to national topics. The eConsultation tool was only used in one university. There are two reasons. On one hand in UAB, UB, UPC, UdL and UdG it was introduced after the trial started, because of a delay

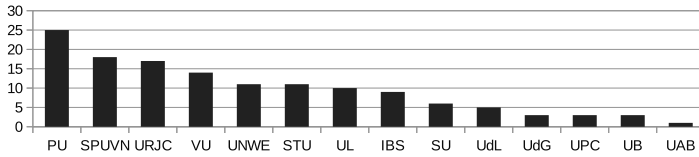


Figure 1: eParticipation initiatives per university

with the integration with the single sign-on system. On the other hand, in the rest of the universities the learning curve of the managers took more time than expected.

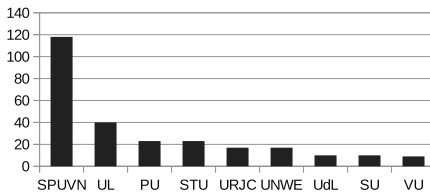


Figure 2: Average Discussion replies per eParticipation initiative

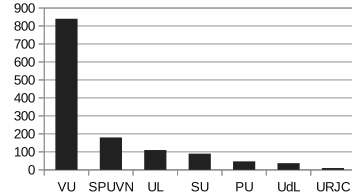


Figure 3: Average Poll votes per eParticipation initiative

Neither the number of initiatives initiated nor the participation was uniform. Some universities had high levels of participation in specific tools, other ones were on the average and some of them had almost no participation. SPUVN had a very high participation in the average number of replies in discussions (Figure 2). VU had a high participation in the average number of votes in the polls (Figure 3). In ePetitions, the one with more participation was UL, although only two more universities used this service. And the eConsultation tool was only used in UB. Hence, the universities with more participation were the ones with higher number of initiatives and the ones that followed a bottom-up approach. **This approach turned up to be quite effective to engage the participants and increase the number of initiatives and their promotion.**

### 4.3 Lessons learned

Several lessons learned from different aspects of the eParticipation have been collected:

- **Setup:** The engagement of stakeholders and decision makers was hard in certain cases. This was due to the crisis situation, unclear outcomes expected, or demanding tasks. For the selection of topics, a better communication among other portal managers of other universities lead to a greater range of ideas.

- **Initiatives:** For creating the initiatives it was positive to have a group of responsible persons at different levels of the university and to involve managers, teachers, students and also student organizations or activist groups. The eParticipation initiatives must be valuable, not generate fake expectations and with relevant topics which fulfill users' expectations. Their outcomes must be visible [Tom09].
- **Promotion:** An extensive promotion of the initiatives at different levels is of utmost importance [PTT10]. Examples of them are announcements in the university websites, e-mail, university boards, lectures and conferences and international events.
- **Participation:** In general was not easy to engage the students and the participation was modest. Success factors are the involvement of lecturers in the portal discussions, the discussion of topics related to the subjects taught, starting by discussing community building topics, an extensive promotion of the initiatives and solid moderation efforts (to reactivate abandoned discussions). It is also important to keep the authentication simple, e.g. integration with the university single sign-on system.
- **Results:** The results and outcomes must be disseminated to make users aware of the value of their contributions. It is valuable to know the profile of the participants (professors, students or administration).

## 5 Conclusions

This paper introduced MyUniversity, a European project that fosters the eParticipation in higher education institutions. Within the project a framework and a methodology to manage eParticipation initiatives has been created. A description of the framework functionality and recommended procedure to setup eParticipation initiatives has been provided. The framework was deployed in 14 universities. A trial was performed and the participation results and lessons learned described.

The deployment has been successful, but the participation was moderated and non uniform. This is due to several reasons. The startup of the trial was longer than expected, probably due to the number and heterogeneity of universities involved. The learning curve to manage the eConsultation tool, which is a powerful tool more complex to administrate than the others was also longer. In some cases the initiatives were not optimally promoted. And the trial started in an economic crisis situation where some stakeholders were reluctant to create initiatives where the decision making was difficult to be influenced.

In a second trial of the project, currently being undertaken, some of the mentioned issues have been solved and the participation has increased. In addition several universities, from Brasil, Mexico, Turkey and Ukraine, have joined the new trial through the SuperPortal and the project duration has been extended. Nevertheless, further work has to be done to train the administrators on the usage of all the tools, to improve the creation, promotion and management of eParticipation initiatives, and to increase the involvement of the stakeholders.

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## References

- [LCP<sup>+</sup>10] Fenareti Lampathaki, Yannis Charalabidis, Spyros Passas, David Osimo, Melanie Bicking, Maria A. Wimmer, and Dimitris Askounis. Defining a taxonomy for research areas on ICT for governance and policy modelling. In *Proceedings of the 9th IFIP WG 8.5 international conference on Electronic government*, Lecture Notes in Computer Science, pages 61–72, Berlin, Heidelberg, 2010. Springer-Verlag.
- [mu-12a] D2.7: Advanced version user guides. Technical report, ScytI, May 2012. MyUniversity Project Deliverable.
- [mu-12b] D4.1: Summary report of the contributions of stakeholders to the platform. Technical report, GFI, July 2012. MyUniversity Project Deliverable.
- [mu-12c] D5.2: Initial Evaluation Report on the Trials Impact and Potential Scalability. Technical report, Stockholm University, January 2012.
- [mu-13] D3.3: Initial version users’ results report. Technical report, ScytI, February 2013. MyUniversity Project Deliverable.
- [PK08] Chee Wei Phang and Atreyi Kankanhalli. A framework of ICT exploitation for e-participation initiatives. *Commun. ACM*, 51(12):128–132, December 2008.
- [PMR07] Jordi Puiggali and Victor Morales-Rocha. Independent Voter Verifiability for Remote Electronic Voting. In *SECRYPT*, pages 333–336, 2007.
- [PTT10] Eleni Panopoulou, Efthimios Tambouris, and Konstantinos Tarabanis. eParticipation initiatives in Europe: learning from practitioners. In *Proceedings of the 2nd IFIP WG 8.5 international conference on Electronic participation*, ePart’10, pages 54–65, Berlin, Heidelberg, 2010. Springer-Verlag.
- [RBO03] Andreu Riera, Paul Brown, and José Antonio Ortega. Advanced Security to Enable Trustworthy Electronic Voting. In *3rd European Conference on E-Government: Trinity College Dublin, Ireland, 3-4 July, 2003*, pages 377–384. Public Sector Times, July 2003.
- [SR07] Clive Sanford and Jeremy Rose. Characterizing eParticipation. *International Journal of Information Management*, 27(6):406–421, 2007.
- [TLT07] Efthimios Tambouris, Naoum Liotas, and Konstantinos Tarabanis. A Framework for Assessing eParticipation Projects and Tools. *Hawaii International Conference on System Sciences*, 0:90a, 2007.
- [Tom09] Jordanka Tomkova. E-consultations: New tools for civic engagement or facades for political correctness? *European Journal of ePractice*, (7):45–54, March 2009.
- [Wim07] Maria A. Wimmer. Ontology for an e-participation virtual resource centre. In *Proceedings of the 1st international conference on Theory and practice of electronic governance*, ICEGOV ’07, pages 89–98, New York, NY, USA, 2007. ACM.