



POLITÉCNICA

# Memoria de Proyecto de Innovación Educativa

Cursos 2014-15

<http://innovacioneducativa.upm.es>

## Memoria del proyecto Urban Net-Working Workshop

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### 1. CONSECUION DE OBJETIVOS / ACTUACIONES

#### 1.1. De los objetivos y actuaciones previstas en la solicitud de su Proyecto, describa cómo ha sido la consecución de ambos:

Nowadays, access to international networks is a need, especially daring and valuable for universities at developing and medium size countries. Their benefits in a global world are well known: academics enlarge their scientific knowledge and improve their teaching methodologies. Students benefit from experiencing differences in living, academic programs and cultural background. Especially valuable for them is to understand how similar issues are addressed from different cultural perspectives, professional methodologies and institutional environments.

To face the above mentioned challenges, the project called “**Parallel Virtual Workshop (PVW)**” was set by a group of professors at the Department of Urban and Regional Planning, Madrid Technical University (UPM), since 2012 to present. This initiative was supported by the “Grupo de Innovacion Educativa GIE-UPM”, named **Urban net-Working Workshops (UNWW)**, born on 2014 and consolidated on 2015.

#### Main goals

The Urban Parallel Workshop was designed to give the post-graduate students of Urban Planning at the ETSAM-UPM a quasi-professional project-based experience in developing urban planning strategies at a neighborhood scale, with a focus on three main objectives: the developing of multidisciplinary and comprehensive skills for urban planning teamwork through a practical experience, the internationalization of their understanding of urban phenomena through comparison and networking with other urban planning schools, and the usage of innovative technology within the specific needs of the discipline.

Every edition of the Urban Parallel workshop has been rather unique. Each year, it featured a different theoretical framework, a diverse set of students, and the pairing of our faculty with an international urban planning school to approach two parallel case studies. During the last four editions of the Workshop, we have experimented with the workflow of urban planning multidisciplinary teams, having the chance to observe our students and reflect on how different academic backgrounds, urban planning cultures, working methodologies and diverse case studies affect the very process of action in the discipline.

The workshop’s outcomes have varied greatly and significant lessons have been learned on student diversity management, operational workflows for project-based learning in urban planning and comparability issues between case studies. At the same time, the workshop has progressively integrated different ICT’s in its workflow, and interesting insight on the potential of its usage has arisen.

Our purpose has been to utilize the different findings in the four-year experience of the Parallel Urban workshop to understand the determining factors that shape the outcomes of our workshop, and establish the guidelines to go **increasingly digital** in the pedagogical design, providing practical tools that can help our students through their transition to the practice of urban planning profession.

#### The innovative project

26 november 2011 was proposed this Innovative Group, named Urban Net Working Workshop GIE\_(UNWW)

24 january 2014 was confirmed, as in consolidation process

23 july 2015, it was declared consolidated

Thank you to the grant and economic supply by UPM- Innovacion educative, the GIE UNWW received an extra money, focused to:

1. Documental and theoretical review about the net-learning, net workshops ,and digital education all over the world
2. Challenges in urban planning on the 21st century, and how this can be achieved by urban workshops
3. Deliver a new tool, to make this interaction more real, so students of two different universities could really work together and solve urban problems.

This year, a thorough review of literature associated with Digital Education and Urban Planning challenges (both in practice and academia), combined with past experiences of the workshop, have shaped the idea of defining a series of general guidelines for the digitalization of education in urban planning. By doing this, we intend to give assessment on tools and workflows in urban planning teamwork that can be significantly improved by digital means, and the way to integrate them. Our purpose is to discuss the opportunities of new technological trends and the digital culture in our discipline, in order to help developers, professionals and academics to shape the future skills in urban planning.

The focus for the usage of ICT's during the past editions of the workshop has been twofold: **communication** and **decision making**. These are two critical skills to be developed in our students, and the aim of experimentation with the technological integration of the workshop.

For **communication** issues, videoconference sessions and blog entries have been used in all four past editions to share the information at all stages of the Workshop (results of urban analyses, assessment of potential scenarios, and definition of proposals). Static infographics and cartographies (delivered as plates for exhibition or competition) were the main means of communication among the members of each participant university, and between both teams at these stages. Many different digital tools were used produce cartography, infographics and planimetry. Towards the last editions of the workshop, the importance of developing a fluent environment of communication that suites the requirements of the contemporary digital culture has been a matter of discussion, together with issues that deal with the diversity of digital literacy and backgrounds in the participants of the workshop.

In terms of **decision making**, many different workflows have been applied to gather information, evaluate data, and visualize findings to have a clear subject of debate within the students. Calculation sheets, GIS workflows, and CAD software have been the major tools at this point. Most of this workflows have been established by the teachers, based in tested methodologies, but the outcomes of the workshop show that the diversity of students (and specially, academic backgrounds), can bring very interesting contributions to it's dynamics. This diversity, on the other hand, can also bring inequity in digital skills, and may result in uneven participation of the students in the activities, and even drop outs.

### **The new tool for urban workshops**

We have develop a **Learning Management System Platform**, that would encourage the utilization of digital technology at every step taken in the workshop. The chosen platform for trial is Moodle, a constructionist learning management system that allows enough flexibility, provides a big diversity of tools, and works in an integrated environment.

The main idea was to have a first experience in a custom integrated digital environment (in a after an experience with the proposed new tool and ways of implementing ICT's in our Parallel Workshop Course, a thorough analysis of thw previous five editions, comparing the outcomes of each one of them, and a retrospective survey (for past editions' participants that has already been launched).

We will now summarize the findings of the research so far, that have motivated us to experiment with new tools in the ongoing edition, and the expected outcomes for each considered issue. By the end of the current edition, we expect to have a complete insight on the matter to be able to develop specific digital tools in the context of multidisciplinary teamwork in urban planning.

The summary distinguishes between both fields of potential for digital implementation, and different environments or stages of the workshop for each one of them. For each item, we present the experience with different ICT's already been tested and the challenges identified in past editions. Later on, we propose an idea for educational innovative responses to these challenges, the means of implementation within the above mentioned LMS (moodle), and the expected outcomes.

We expect significant results by the ending of this year's edition, as it has been designed on a solid basis of past

experience and literature review on the subjects involved. Hopefully, our research will give an interesting light on the progressive implementation of technology in Urban Planning education and practice, shaping the future steps to be taken.

Identified variables:

COMMUNITY SENSE: Students must feel they belong to a community in order to improve interaction

INTERACTION: Interaction channels must be accesible and real time

We need to identify students' backgrounds and interests for a better grouping

PERSONAL CONTACT: Students need to become familiar with the counterpart's reality beforehand

DATA CONSISTENCY: Need for a thorough research on availability of data and comparative measures

TECHNICAL ISSUES We need to identify students' skills for a better task distribution

### **Next experience on Spring 2016**

For the 2016 Spring edition, the Paralell Workshop will be held with the participation of a post-graduate team from The University of Zagreb. We have developed an integrated strategy to digitally test both faces of urban planning in practice and education, in order to meet our needs for improving the workshop functioning, exploring challenges and possible ways around them

Last September 2015, It has been signed an joint workshop agreement between:

Department of Urban Planning, Spatial Planning and Landscape Architecture  
Faculty of Architecture, University of Zagreb, Croatia

**&**

Department of Regional and Urban Planning, Technical School of Architecture, Polytechnic University of Madrid, Spain

In order to participate by this new net-platform created under the MOODEL framework, that will test the real utility of it in a real case study urban renovation area. After this experience, we will check out all the weakness and strengths of it, an make the necessary corrections, to make it a powerful tool for future urban workshops

## **3. RESULTADOS E IMPACTO**

### **3.1. Relacione los productos concretos y tangibles desarrollados (aplicaciones, material didáctico, informes, guías, etc.):**

Moodle forums; Dropbox repository linked to Moodle, in a supervised structure of files

Moodle books templates for presentation; Collaborative mapping in Google My Maps, embedded in Moodle

Students Survey in Moodle for an even skills-and-interests-based task distribution.; On-line Graphic design resources tutorials at different levels

GPS mapping; Open source data management; Specific data mining tutorials.;Video links to best practices.

Advanced Excel; Specific forums

Collaborative library in moodle; Wiki environment in moodle; Best practices in GIS and CAD analytics; Moodle mind-maps

### **3.2. Describa el impacto del PIE con resultados o evidencias obtenidas en los ámbitos que sean oportunos**

#### **3.2.1 Mejora resultados aprendizaje:**

A more fluent interaction; A better organization; A bigger student community feeling

A clear organization for better comparison and understanding between international teams.; A more intuitive and interactive way of creating collaborative mapping and documentation.

A better communication outcome; Improvement in graphic communication skills at different levels of specialization.

Unify data formats and measure units for comparability issues; Gain experience in scope and difficulty of different workflows

### **3.2.2. Mejora de sistemas de información:**

Encourage the students to carry on their own personal analyses; Ease the exchange of information

Improve practical skills in the design of urban research and its digital implementation

Deepen in the student's own interests

Gain experience with an integrated assessment workflow.

Develop critical skills for decision making processes

### **3.2.3. Mejora en el uso de metodologías:**

<http://duspduyot.mit.edu/>

<http://www2.aq.upm.es/Departamentos/Urbanismo/blogs/ucl-duyot-parallel-workshop-spring-2013/>

<http://www2.aq.upm.es/Departamentos/Urbanismo/blogs/urban-networking-workshop/>

### **3.2.6. Mejora en la cooperación interinstitucional:**

Parallel urban Workshop on spring 2016, will improve:

Diversity of backgrounds and readings of subjective mapping for the students

Time consuming with interesting and effective results

Control the number of variables. Too many can difficult the development of proposals.

### **3.2.7. Mejora de las tutorías:**

Next on-coming experiences will improve:

Uneven experience, Diversity of interests.

Uncertainty of concepts.

Limitations of familiar technology for new purposes

### **3.2.8 Transferencia de productos, servicios, métodos,... a otros centros UPM:**

We think this methodology can be implemented in other Master courses, with this configurations:

1. importance of the international process
2. workshops as a way of learning actual problems
3. multidisciplinary approach

### **3.2.9. Mejora de sistemas de evaluación:**

Diversity of students brings uneven expertise, and may lead to uneven distribution of tasks, unfinished the documents, or tension between team members.

International diversity.

Unavailability of homogeneous data.

Uneven skills in data management.

### **3.2.10. Otros**

#### **Ámbito:**

Next steps on 2016

#### **Descripción:**

### 1º) Documental and theoretical review

A report will be made with all this information, which will show critical comprehension of the principles and significant theories concerning sustainable cities, urban and rural regeneration within historical and geographical contexts. It will demonstrate conceptual understanding of the drivers and the processes through which cities are influenced and strategies for their regeneration

### 2º) The new tool for urban workshops

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We expect significant results by the ending of this year's edition, as it has been designed on a solid basis of past experience and literature review on the subjects involved. Hopefully, our research will give an interesting light on the progressive implementation of technology in Urban Planning education and practice, shaping the future steps to be taken

## 4. DIFUSION

### 4.1 Especifique las acciones de difusión realizadas (congresos, jornadas, artículos, capítulo libro, libro completo, etc):

During this year 2015, one international conference was attended:

ICEILT 2015. (International Congress on education, innovation and learning technologies) Granada (Spain).21st October 2015. **A conceptual insight on digital parallel workshops for urban planning.** E. Higuera García, J.M. Fernández Güell; P. Lamiquiz Daudén; Manuel Benito Moreno

On 2014, two international conferences were attended:

ICEILT 2014, Barcelona, Spain, July 2014: "Multidisciplinary Urban Design Workshops". Authors: Higuera-Lamiquiz-Fernandez Güell

FIE 2014, Madrid, Spain: November 2014: "Parallel Virtual Urban Workshops A "reasonable-cost" methodology for academic internationalization in problem-solving oriented postgraduate subjects". Authors: Higuera-Lamiquiz-Fernandez Güell

For 2016, an abstract was sent to :

International conference: Urban e-planning :recent developments, Emerging Issues and Future Challenges Will take place in Lisbon (Portugal) 2016

<https://sites.google.com/site/ijper2016conference>.

Paper: **Parallel Workshops as an innovative planning tool.** Registered on 9th December 2015, and accepted on January 2016

### 4.2. Asistencia a eventos sin realizar ponencias:

None

## 5. DIFICULTADES Y SUGERENCIAS DE MEJORA

### 5.1. Describa las dificultades más relevantes encontradas así como las sugerencias de mejora que considere oportunas. :

Some external and internal difficulties were determined on this last years of Parallel Urban Workshops:

Time-zone issues,

Static information,

Students do not show proactivity towards the blog, its usage needs to be compulsory to fully gain attention by students,

Too much textual information,

Needs to be regularly updated,

Needs teacher staff to constantly update its content and stimulate the activity

## 6. VALORACION SERVICIOS


6.1 Valore de 1 a 10 la atención recibida por el Servicio de IE: 6

6.2 Valore de 1 a 10 los servicios y recursos disponibles en el Portal de IE: 7

### ADJUNTOS

#### Ficheros adjuntos:

 [MemoriaGIE\\_2015.docx](#)

 [Tabla\\_2015.docx](#)