

COLLABORATIVE TOOLS FOR UP2U PROJECT TASK MANAGEMENT AND TEAM INVOLVEMENT

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Abstract

In a collaborative European project, such as the UP2U case, with partners from 18 institutions and several countries, there is a need to identify mechanisms with potential to promote work and delight people in the Project Work Packages. During the last four months, a team meeting once in person and having this face-to-face meeting was important to strengthen relationships and team members to meet face-to-face. After this phase, the work has become essentially digital, drawing on a panoply of tools with different objectives, but to provide differentiated collaborative teams.

For a team to function well remotely and to effectively engage in an ambitious project, so a company that works in person not even locally, it is necessary to implement and develop a good strategy without meaning to lead a company to achieve greater success in the work that they intend to develop.

Numerous tools with the potential to facilitate the management of tasks and activities such as “Trello”, a collaborative tool that lets teams organize their projects into boards. Trello shows all the tasks inside each board and who's working on what, and allows team to understand where something is in a process. Also, Up2U team are involved every week in remote Video Conference Meetings (needing VC infrastructures and Solutions), Share documents (cloud as google drive), or work collaborative on a document and needs to use for instance, Google docs. In the meantime, team need to schedule meetings (doodle) and so on.

Given a requirement of meeting deadlines with periodic deliveries the solutions founded appears to help to managed the project and to have potential to promote remote collaborative work. This document is about describing as main tasks and presentations as meaningless support tools to assist all those who must collaborate remotely in a project of this nature.

Keywords: Up2U, Project, Collaborative tools.

1 INTRODUCTION

In an international project, such as Up2U (Up to University) are involved people from different countries and it is necessary to find solutions that facilitate it realization through the adoption of good practices. For this purpose, it is necessary to ensure good planning of activities and involvement of the people to guarantee that the According Agreement is fulfilled and guarantee the good execution of the project.

In this arduous task, it is essential to ensure the involvement of all the participants because they work in very distant places (different countries) and do not have many opportunities to meet face-to-face with each other.

It is essential to find a way of managing, virtual meeting and talking, sharing documents, collecting opinions and communicate so that the partners feel involved in the whole project in general or in their Work Packages.

Throughout the present paper, we will present some of these solutions, their objectives and the process to witness a good practice that can be adopted by other researchers in similar projects.

At the same time, we will try to understand if the good practices adopted on Up2U related with planning and management that could improve the execution of an international project also make sense in the academic world, specifically in the context of the Up2U Project, which aims to reduce the gap between secondary education and university.

2 METHODOLOGY

The adopted methodology was presented during the first meeting of the project in Amsterdam. After the presentation of the partners and the main activities related to the Work Packages to ensure the implementation of the project, it was decided that Trello¹ would be adopted as a centralizing tool for the process.

2.1 Up2U main Working Package's

The Up to University project is divided into several areas of activity called Working Packages. Each of the Working Packages has defined objectives and includes several people from different countries.

However, all the activities of all the Working Packages have a common goal, that of taking the project to good use. In the Up2U project one of the target audiences is the professors by which the following Workflow has been defined.

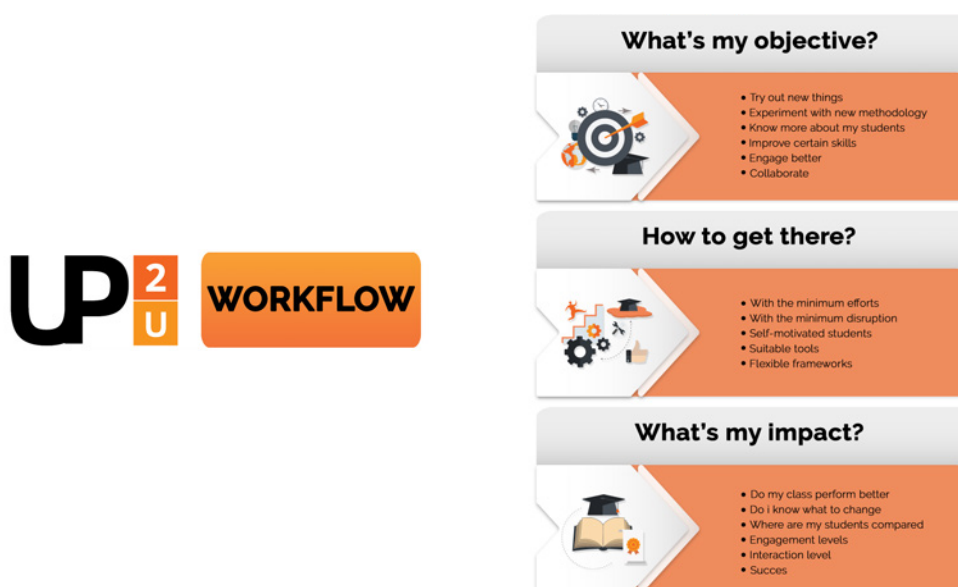


Figure 1 Up2U Workflow

The reality of secondary schools is quite different between countries and, even in the same country, between schools.

To better globally characterize schools and their real technological situation and needs, was done a big set of questions to be answered by teachers and directors of each school. The survey is divided in two sections. The first one is more technical and statistical, mainly for School Directors, who can answer them in a more complete way.

The questions belonging to the second part are about the use of technology in class during the lessons, so more than one teacher should answer to give a wider panorama of the use of technology in class.

2.2 Adopting Trello as an Up2U central management

According their website, Trello is the easy, free, flexible, and visual way to manage your projects and organize anything, trusted by millions of people from all over the world.

Creating a Trello account is free, and very simple but users need an account before use Trello, or the project management board [1]. Users also can sign in using their personal google account (i.e. if they have a Gmail account or any other e-mail).

Once user have completed these he will be taken to a welcome board which is the standard board that Trello gives to start with and he is ready to use Trello.

¹ <https://trello.com>

Up2U or any other project that involves people can use Trello to organize work and activities involving their members on the tasks as on a physical place (ex. A school or a company).

The first thing a user needs to know is the navigating basics. Trello has a lot of different interactions but its aa easy interface and after a few times becomes an intuitive, simple and easy to use.

After all the team members integrate the project on Trello everything will run much better. Lets analyse the basic steps to involve a team on Trello.

1. The user account: User needs an account (can be created on trello or use their own account as and Gmail account);
2. Alerts: When user has an alert, the background will turn red. Users will get alerts when another member of the team updated a card related with his work or activity.
3. Menu: When you click on 'show menu' you will get a number of additional options regarding your board. You can find more information about what these options are below.
4. Calendar view: This button will represent your board as a calendar, organised according to the due dates of each card. To get out of the calendar view, you simply click the calendar symbol again.
5. Lists: keep cards organized according to themes. For this template, we have created a list or each area of work within your project. You can easily move cards from one list to another, or up and down in the same list, by dragging a card and dropping it in the desired position.
6. Cards: The fundamental unit of a board is a card. Cards are used to represent tasks. There is no limit to the number of cards you can have on one board.

As shown on the picture above Up2U Work Packages are represented by 8 boards. Those boards act like interactive buttons that Directs the user to the respective area

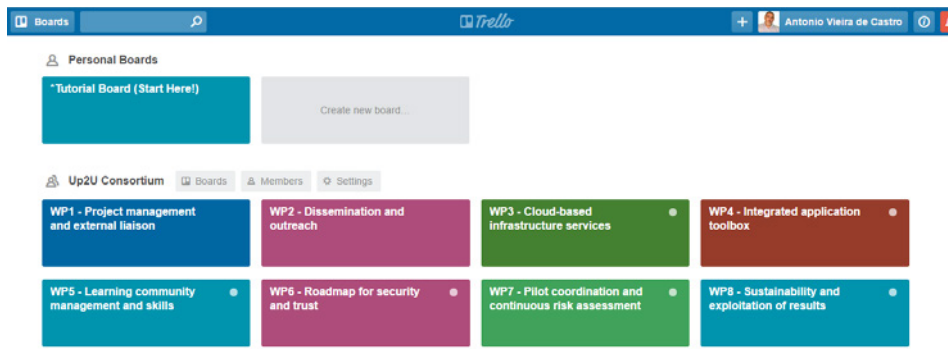


Figure 2 - Up2U WP's in Trello

When we click on the box related with a WP we enter on the respective WP area. As example the following figure shows how Work Package number two (WP2) is organized.



Figure 3 The WP2 example

As can be seen it is divided into the following cards: Tasks and Objectives, Deliverables, Planned, On-going and Done. It's possible to see the users inside each card. Each time a new post is made involved users are notified by e-mail.

Labels are a way of categorizing cards. Each label will be associated with a color, which are then displayed on each card tagged with that label, as shown above. Labels give you a quick way of filtering your tasks.

Filter cards allows users to view only the cards that adhere to certain criteria. Cards may be You can filtered by label, by a member of team that that tasks are assigned too, and by due date.

Members have a way to easily see only the tasks that are assigned to them.

Trello gives users the ability to add new tasks. Using the options, a new task will be placed on user board.

2.3 Distance meetings solutions

A project of this size requires that its members dialog and meet periodically to define strategies and talk about the work related to each of the Working Packages.

Being too large a distance between partners (who are in different European countries) it is necessary to find solutions mediated by technology that provide and facilitate these meetings at a distance.

Besides being necessary to guarantee the audio and video use of each of the participants, it is important the stability of the system, the presenter's screen sharing and the possibility of recording the meeting for later consultation. A chat mechanism and moderation system is still required.

For this reason, it was necessary to find solutions with this potential. Let's analyze some of them that have been used.

Global economy requires new ways to communicate and doing business. It simply is not feasible to travel to all locations to meet prospects, customers, fellow executives, and colleagues. It's inefficient, too expensive, and hampers productivity. Today's companies are global operations, with distributed workforces, worldwide clients, and round-the-clock customer support. When the workday ends in one part of the world, it's just beginning on another continent. Increasingly, knowledge workers are trading cubicles at corporate headquarters for remote offices, mobile workplaces, and virtual rooms. Travel budgets continue to shrink, while the need to work collaboratively with global teams continues to amplify.

2.3.1 Google Hangouts

According with the learning guide "Getting started with Google Hangouts" from the RMIT university [2] Google Hangouts allow you to have one-to-one or group conversations using text chat, voice or video

calls. Authors refer that video hangouts can have up to 10 participants (or up to 15 if you are using a Google Apps account on the school or organization).

During a video Hangout, participants can collaborate live using Hangout apps. Hangouts work from within Gmail and Google+, and from mobile devices.

One of Up2U first meeting was made using Google Hangouts (Fig 4).

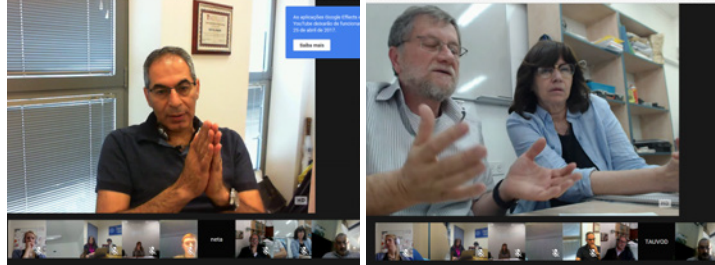


Figure 4 - Using Google hangout on the first WP2 meeting

One of the main problem of Google Hangout tool is that all the participants must have joined Google + before use the full functionality of video Hangouts. It's possible to add a Hangout to a calendar event.

Google hangout allows Text chat that could be very useful in case of audio or video problems and is also interesting to collect other opinions or suggestions during the meeting.

2.3.2 Skype

Skype is an application that turns a personal computer into a telephone or a Video Conference room. Skype uses voice over Internet protocol (VoIP) technology, which converts voice signals into data streams that are sent over the Internet and converted back to audio by the recipient's computer. Although Skype is not the only company that offers VoIP services for consumers, it functions on a P2P model rather than as a centralized application. With the P2P model, users download a piece of software that allows computers to communicate directly with one another, without having to be routed through a central location.

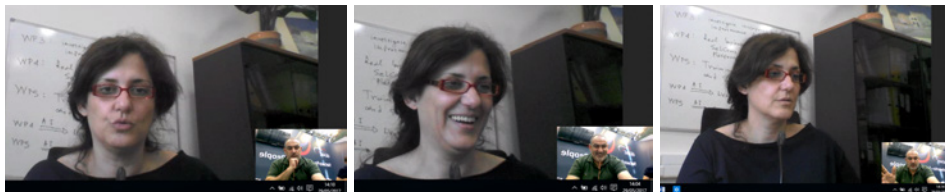


Figure 5 - Meetings by Skype with two Up2U project members between Greece and Portugal

This decentralized model allows Skype to function as a robust, distributed medium for communication. The service allows communication between Skype-equipped devices, which is free, or between a Skype device and a conventional telephone for relatively modest fees. Skype offers features such as voicemail and call forwarding, and the service also now supports video communication.

Mostly Skype was used to meetings one by one but it also could be used to meetings with several users. It allows screen share, offers a chat room and allows users to share files.

2.3.3 ZOOM

One of the most used tools (at least not WP2) was the ZOOM since the Portuguese NREN (FCT-FCCN) made it available for the purpose a Video Conference room through the ZOOM.

According the official portal ², Zoom unifies cloud video conferencing, simple online meetings, group messaging, and a software-defined conference room solution into one easy-to-use platform. They consider that Zoom offers the best video, audio, and wireless screen-sharing experience across by

² <https://zoom.us/about>

Windows, Mac, Linux, Chrome OS, iOS, Android, Blackberry, Zoom Rooms, and H.323/SIP room systems.

Zoom provides to users a Cloud Video Conferencing with: HD video, HD Voice with dynamic voice detection, Full screen and gallery view, Dual stream for dual screen, Feature-rich mobile apps for iOS and Android, Join by Zoom Rooms, Join as view-only attendee (Zoom Video Webinar), Join by H.323/SIP room systems, Join by telephone dial-in, Accessibility features enable users with disabilities to schedule, attend, and participate in Zoom meetings and webinars. Zoom was founded in 2011 and their mission is to make video and web conferencing frictionless.

Our experience with Zoom was quite good.

2.3.4 Adobe Connect

Another solution was Adobe Connect and the meetings were scheduled by the Greek NREN, GARR.

Before use Adobe Connect users must download an installer and authorize it to use the security dialog and follow the instructions. After that user can join the meeting launching Adobe Connect.

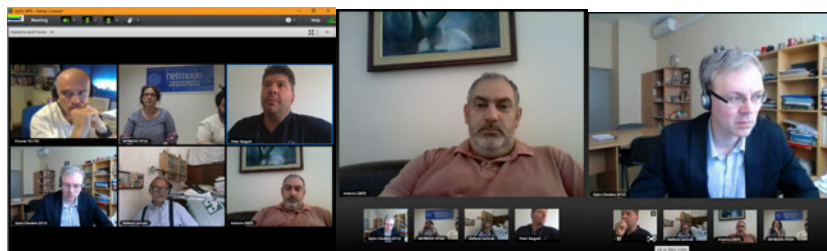


Figure 6 Adobe connect used on Wp8 preliminary meeting.

It's possible to have different views as shown on fig. 6. It's possible to see all participants or select a user to see. It is also possible to share the desktop and demonstrate local contents to others.

2.3.5 Goto Meeting

According Michael Woodward [3], GoToMeeting is fast becoming a favourite tool for teleconferencing, online meetings, and even sales demonstrations. GoToMeeting is extremely flexible. It can be used from any browser as well as most mobile devices, and with or without a camera.

GoToMeeting offers a ton of great features, too, even in the free version (the one we used, at least for now). The professional versions offer even more powerful tools. This author refers that GoToMeeting is especially convenient for companies that have employees virtually all over the place, because it's easy and super cost-effective to convene everyone via an online seminar instead of flying them all to headquarters for that big annual meeting.

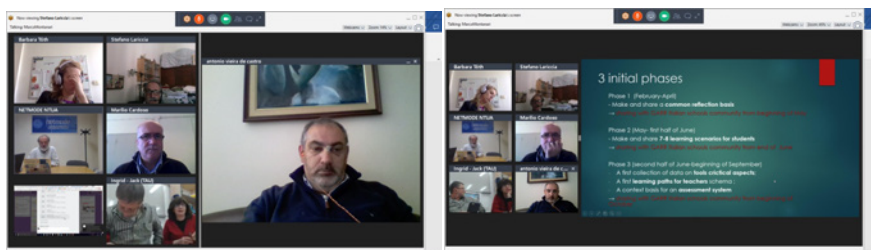


Figure 7 - Using GotoMeeting on Up2U meetings

Using GoToMeeting, users can schedule, host, and record online meetings and webinars. The free version is fully featured, but only allows to connect to two additional people that is very few for our intents. Payed version will accommodate up to 100 attendees. The core features of GoToMeeting include: High-definition video conferencing; Toll-free numbers available; Share what you see; Multiple meeting facilitators; Share keyboard and mouse control; Record the meeting; Drawing tools; Access meetings from most popular platforms and mobile devices and use add-ons and plug-ins to manage meetings using Outlook, Google Calendar, iOS calendars, and other popular devices and apps.

2.3.6 Cisco WebEx

Cisco WebEx (<https://www.webex.com/>) was also used on several video conferences with great success. An example is shown on Fig. 8.

The Webex meeting window provides a forum for you to manage all aspects of the meetings and enable participants to chat, send video, share information and interact with each other using documents, presentations, whiteboards, applications, and more

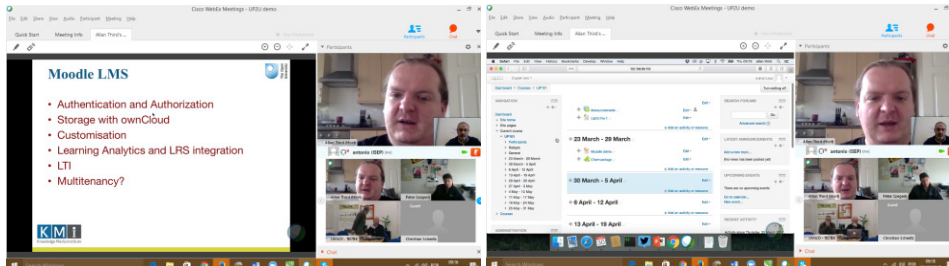


Figure 8 - Meeting using Cisco WebX

2.4 Mechanisms for gathering opinions

Meetings are needed to discuss functional aspects and operationalize activities related to each of the WPs. However, involving people from different countries (most often with different time zones) is not a simple task and it is necessary to try to find the best time to do so. For this there are tools like the doodle that we use to define the best date and time to schedule a meeting.

It is also necessary to collect opinions or information from each of the pairs, but for this there are other types of tools like Google forms that provides the creation of a custom form for the purpose to which it is intended. In this section, we will analyze two free tools and present use cases within the scope of Up2U: 1 – To schedule a meeting and 2 – To collect data of information.

2.4.1 O Doodle

Doodle is a web-based scheduling service. It allows users to easily set up a web page where potential attendees of a meeting can go and declare their availability (or not) at a series of proposed times and dates by filling in a simple online form.

Someone creates a poll that share with others. Basically, those who are invited will visit a web site and easily see which is the most convenient time for them to schedule the meeting. Meeting could be planned based on people's responses.

According doodle portal [4] doodle radically simplifies the process of scheduling events, whether they're board or team meetings, dinners with friends, reunions, weekend trips, or anything else. They refer that "this smart assistant saves time for millions of people worldwide, and in the end, it brings people together".

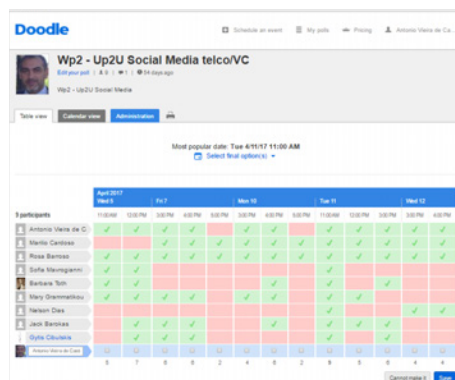


Figure 9 - Using doodle to plan a meeting related with Up2U Social Media Sub task

With a free of charge philosophy on Up2U project and considering that doodle is free and doesn't require registration by either the initiator or the participant on a meeting poll it seems to have a good potential to help Up2U team to plan their meetings so we used it several times.

Figure 9 shows a form created with the doodle to gather information about the availability of each user to participate in a meeting related to a sub-task of the Social Media topic within WP2. As can be observed each User informed their availability to a day / hour binomial indicated by the proponents of the videoconference meeting. At the end, the meeting is scheduled for the time that most participants coincide (in the case on April 11, 2017 with 9 participants).

2.4.2 Google Forms

Google Spreadsheets Google Forms [5] are an extension of the Google Spreadsheets that is one of the applications available in the Google Docs suite of free, web-based applications. It's functions and capabilities are similar but scaled down compared to those in traditional spreadsheet products such as Excel. Access to spreadsheets is done through a web browser. Like all other Google Doc applications, users are not only able to create and edit these spreadsheets online but also share them with other users in order to collaborate.

Google Forms can be published as a webpage or can be embedded within an external blog or website and can be shared with others for collaboration purposes not only for creating and editing the form but also for reviewing the survey responses and can be published as a webpage or can be embedded within an external blog or website. Collaborators can be given view-only or full editing privileges, and chat in real-time within their shared spreadsheet and it allows users to quickly create a web-based form, such as a survey, and deliver it via the web. Users can quickly create a web-based form, such as a survey, and deliver it via the web to others. Google Forms is also free of charge.



Figure 10 - Using Google Forms to collect informations

Figure 10 shows an initial use of Google Forms: In this case used to gather information about the participants in the Porto meeting. Other forms are being planned and prepared to be sending to Secondary Schools, Higher Education Schools, Teachers and Students.

3 RESULTS AND CONCLUSIONS

The Up2U project is now in its fifth month of life, lasting 36 months. So far he has had two face-to-face meetings, all of which are virtual. The tasks have been carried out normally thanks to a wide range of solutions with management and communication potential (synchronous and asynchronous) that provide the whole team with a systematic and permanent communication. To supervise the operations was constituted the Board And the SMC. The study reveals that the tools adopted have the potential to provide teleworking from a team enabling meetings and discussions focused on a particular topic with the people involved. The tool used to manage the process has revealed potential to connect all activities and involve the team within a specific work (WP). We consider that the present study reveals potential to adopt the same methodology in courses or disciplines that involve several people with a common purpose but with outlined tasks. We intend to analyze its use in educational content

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