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# SOCIAL NETWORKS AND THE WORKING LIFE

Design and development of a business oriented  
social network website for the Innowell project



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**SOCIAL NETWORKS AND THE WORKING LIFE -  
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network website for the Innowell project**

This thesis is a combination of a research about social network websites and the design and development of a business oriented social network website with Joomla for the Innowell Project.

The Innowell Projects goal is to create a network of companies, universities and people that are part of the health technology field. The idea is that they share information with each other; organize forums, courses or expositions related with the well-being technology field. This will facilitate collaboration between companies, hospitals and people in general in any project that is developed.

We study what is a social network, the history and evolution of social network websites and how they influence today's working life. Social network sites are extremely used these days and they are a huge opportunity to develop a business, it can be used as a cheap way to spread a brand and let people know what you can offer as a business and as a person.

In this thesis is shown the process of development of a project, specifically of a website. The steps taken in the design and development of the site.

To develop the site it was used a free content management system from Google called Joomla. We show how it works, and how to use it to create and maintain a website

The result of this thesis was a business oriented social network website which will work as a medium for the Innowell project network.

**KEYWORDS:**

Innowell Project, Social Networks, Social Network Sites, Business oriented social network sites, Joomla, Web Design

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# 1. Introduction

The main goal of this thesis is to design and develop a web portal for the Innowell Project.

The Innowell Project wants to join companies, students and universities that have any interest in the health technology field to share information and allow them to grow and improve with each other's collaboration.

This Website would be a Business oriented social Network site. The purpose of this site would be to interconnect companies and persons related to the well-being technology field, allowing them to share all kind of information that could be of interest for other users. The information can have different formats, it can be any kind of files which other users can download, it can be a discussion in a forum, it can be a Website link, it can be an article published in the Website, etc.

I got an offer from my tutor Reetta Raitoharju who is part of the Innowell Project as well, to create this Web-Portal for the Innowell Project as my bachelor thesis.

Before designing a social network Website it is necessary to know what they are, how they are classified, how they are organized and what they can offer to users. It is also important to know how they have evolved, with this we are able to have an idea of how will they be in the near future and try to design the portal thinking about that.

To develop the Web-Portal I used Joomla as tool. This is an open-source framework developed by Google and users that help in the continues development of it. The site is made with a template as a base and different extensions offering services that allow users to interact with the portal.

The ultimate goal is to develop a portal that is useful for people and companies, and that in fact it is used for the purposed described.

The thesis is divided in two main parts, one theoretical and another technical. The first one works as background information, talking about social networks, what they are, their types and its history. After knowing a little bit more about social network sites we enter the technical part showing the process followed to develop the project. Starting

with the planification, the previews researches, then we define the problem, what we want to do. Continuing showing the conclusions from the previews research, finally defining the solution or the “how” we will solve the problem. This part it also talks about the tool used to develop the site, what it is, how it works and its different parts. Finally it shows how we implemented our ideas with the proper tools to achieve our goal. Ending with the tests made and the results, the final Website, how it looks, and what it offers.

## 2. Definition of social networks

Before we are able to define what a Social Network Website is, we need to know the definition of some terms like actors, relations, and others. The difference between Networking and Network and what is a Social Network.

Actors, also referred as nodes in the network theory or social units, are usually persons or group of persons who connect to each other, creating “Relational ties” these ties or Relations are normally based in a common interest or characteristic. The basic tie or dyad is the link between two actors. When the connection is between three actors it is called triad and when there are more than that is referred to as groups.[1]

It is interesting to clarify the difference between the use of the term “Networking” and “Network”. The first one refers to the initiation of a relation with other user without previous contact, strangers. In the other hand, the second one is used for the relations with other known user. We will talk mainly about Social Network Sites, because even though it is possible to meet new people, in most cases users join these websites to get in contact with people they already know. [2]

A Social Network is a social structure where many actors are linked to each other through the internet creating relations. These relations are based on common characteristics or interests like religion, politics, music, books, food, travels, etc. In other words, it is a group of people with shared interests that get together to discuss about it and share information. They can get together in person or through some media like internet, in this case we would be talking about social network sites. [3]

Social Network Sites are structured to allow users to show themselves to other users with the help of some tools. It is possible to create profiles specifying all type of characteristics of the user, its likes and dislikes.[4] This is the way to find other users with similar characteristics and establish new “relations” with them. It is also possible to share all type of information through different systems, like private messages, status definition, short public messages, sharing pictures and documents.

These sites live from the information and content shared by the users, so the only way for them to survive is with motivated members who participate and feed the site.[5]

### 3. Types of Social Network Sites

Social network sites can be used in many ways, but always with the same final goal that is interconnect users and share information. Independently on their usability they all have things in common like they all offer a profile system where users can specify information about themselves; also a way to communicate between users, it can be through email, private messages, public messages, or short blogging known as well as status system.

In general there are no limitations when beginning to use a social network site, the only restriction is age which depending on the site can go from 13 until 18.

We can classify these sites in different ways, for example according to their use they would be:

#### 3.1 Leisure Oriented Social Network Sites.

Most of the social network sites have leisure purpose, they are just a way to socialize, reconnect with old friends, know about other people's lives or even meet new people with the same interests or hobbies.

Some examples of these types of sites are: Facebook, Twitter, Bebo, etc.

#### 3.2 Business Oriented Social Network Sites.

In the past couple of years, companies have realized the influence these sites have in people and the capacity to spread information to thousands of users. Because of this, it has started to appear an important amount of social networks focused on joining professionals to share their knowledge, to look for business or job opportunities, as a way to promote a company or a person and as a marketing tool.

Some example of business oriented social network sites are: LinkedIn, Qapacity, PartnerUp, MeetTheBoss, etc.

The fact that these sites are oriented to leisure or business does not mean that it is the only use they get, for example, many companies use leisure oriented social networks like Facebook as a marketing tool, creating a profile of their business, even though it is not to do business it is used to spread the brand and try to gain clients. There are some companies that are applying new interesting ideas to increase the fellowship inside the office by allowing around one hour per week to use social network sites to interact with other workmates, friends and family.[6]

Social network sites can also be classified depending on the way you can access them:

### 3.3 Registration Based

Most of today's social networks sites can be accessed by anyone, users just have to fill a registration form where you specify your personal details, and basic information that might appear in your profile. After completing this form, you are able to login into the website and start enjoying and developing your network.

The great majority of social network sites use this registration system. They follow the idea that the most users the best, and to get this is better giving the few problems as possible to become a member.

### 3.4 Connection Based

In some cases, social network sites are more restrictive and not anybody can just register and use the site, users that want to become members most have already a connection inside the portal when they start, in other words, they need to know somebody who is already a member and they must be invited to join the website. Only in this case they are able to fill the registration form and login to the social network site.

An example of this registration method is Orkut, where in order to join you need to get an invitation from a member.

## 4. History of Social Network Sites

The original idea of what we know today as internet was to interconnect computers and its users creating a network able to share information, programs and resources. This idea was followed by the U.S. Department of Defence when they developed the project ARPANET, where they connected large university computers and some of their users. [7]

After ARPANET many other systems were developed to allow communication between computers. In the 80's personal computers started to be more used and it was more common to find them connected to a central communication host, creating a small network between them. Eventually these central communication hosts started to get connected between them through the internet creating a bigger network and these creating what it was known as "The Net". [8]

When "The Net" began to be commercialized it gained great popularity, increasing its size and reaching more and more people each year.

The first approach to what we know today as Social Networks Sites was called "Bulletin Board System" (BBS).[9] This was software that allowed users to connect to a central system to download files, it was also possible to leave messages to other users. Of course this was quite rudimentary compared to today's systems.

In the 90's the use of internet was spreading and more people had access to it, at this point it was very common to find online communities. The ideas of these communities was to group people with similar interests and give them a place where they could interact between each other through chat rooms, messages, and having a profile where to specify personal characteristics, likes, dislikes, etc.

One of these online communities was SixDegrees, it is considered the first social network website [10] because it allowed users to create profiles, list friends and surf other users friend list. All these features existed before but this was the first site that had them all together.

After this, many online communities refashioned them self to a Social Network website adding different features allowing people to interact easily with each other. Most of these sites were oriented to socialize and interact between the users, until 2001 when

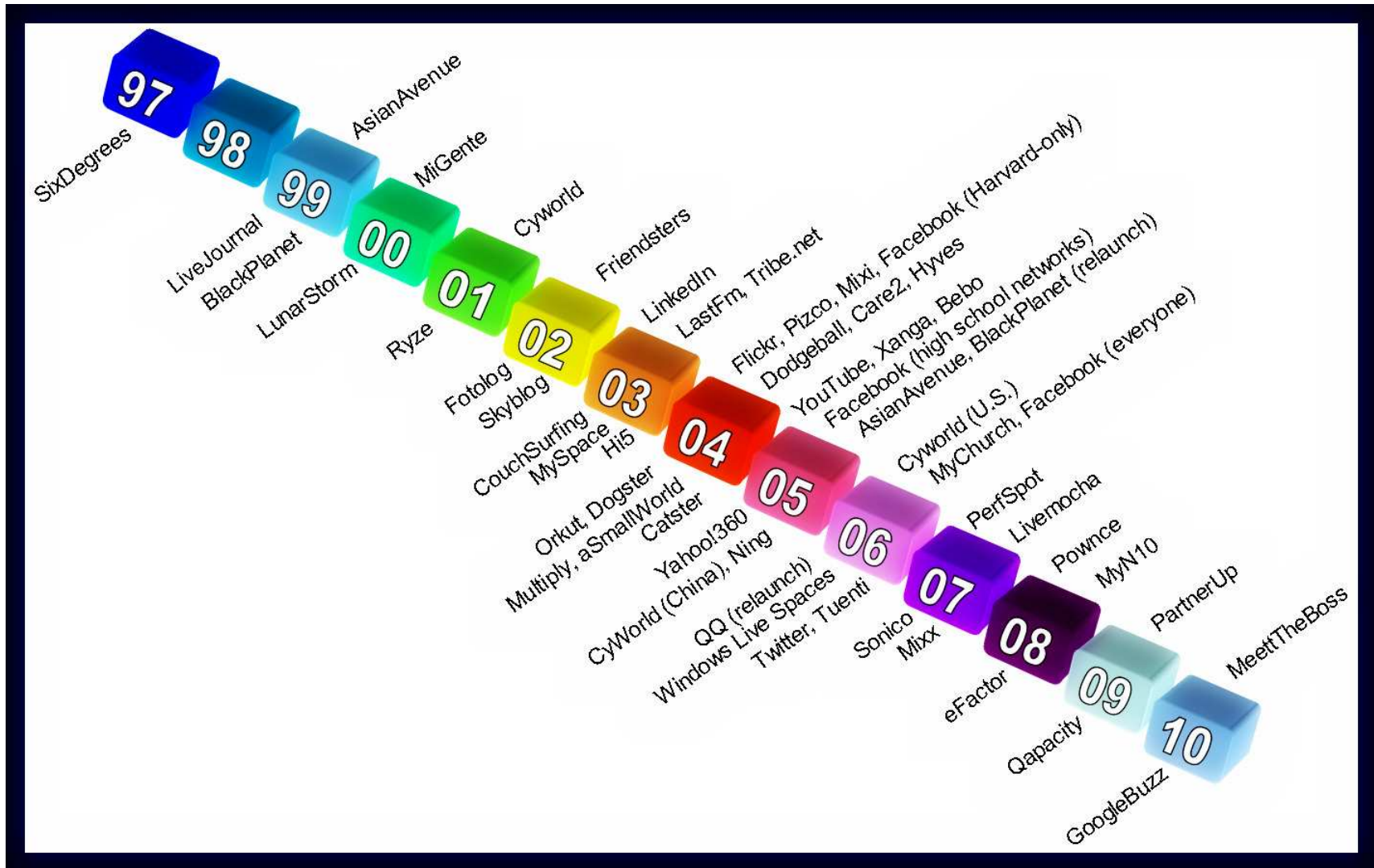
Ryze.com was launched. The goal of this website was to give people support to improve or develop their business networks allowing them to find customers, suppliers, potential business associates, etc.

*“Ryze's founder reports that he first introduced the site to his friends—primarily members of the San Francisco business and technology community, including the entrepreneurs and investors behind many future SNSs (A. Scott, personal communication, June 14, 2007)”.*[11]

The founders of Social Network Sites that came later on as Tribe.net, LinkedIn, and Friendster knew each other personally and professionally beforehand, they thought that they could create their Social Network Sites and collaborate between them without competing with each other. From all these sites, the only one that grew strongly and until this date in LinkedIn which is considered one of the most important Social Network sites, and probably the most important business oriented site.[12]

Social Network Sites are quite a new trend, we can say that the big explosion of them was by the end of 2002 until the end of 2006. During this period most of the biggest Social Network Sites were launched including Facebook, Twitter, Flickr, YouTube, etc. As we can see most of them are for general content, as difference from the first generation of Social Network Sites that were more specific. After these years, we can see how the number of Business Oriented Social Networks started growing, appearing sites like Pownce, E-Factor, Eacademy, Qapacity, etc.

4.1 Time line of major social network websites launches [13]

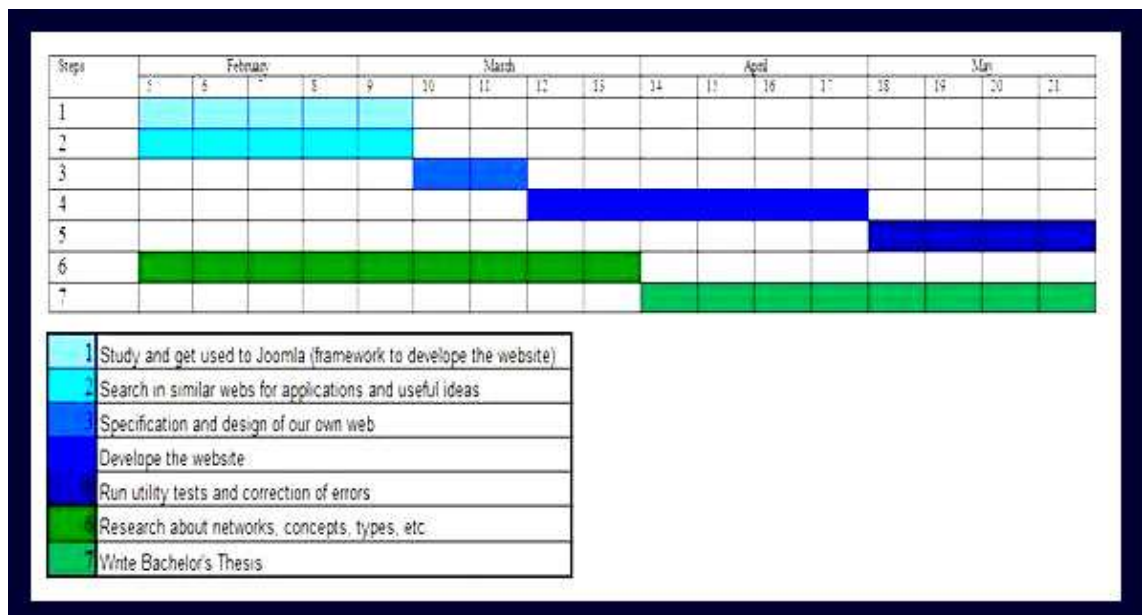


## 5. Design and development of a Business focused Social Network Website

### 5.1 Process View

To develop any project it is necessary to divide it in smaller projects, these smaller projects most have some type of order, meaning that maybe there is one task that you need to finish before you can start the next one. After having decided the smaller tasks to accomplish it is necessary to decide how much time is needed to finishing it, this time most be realistic. When planning the project you need to have some time extra just in case there are some delays with any of the process. In my case, I aimed to finish the thesis by the end of May having all June for any possible delay.

After knowing all the tasks and how long they will take we create a time-line of the project. Some of the task can be developed at the same time. Here we can see the time-line for this project, it includes the development of the site and the documentation of the thesis.



To develop the website Innowell project, I needed to study the framework that I would be using, Joomla. Research how other similar websites are, and take the good things out of each of them, and detect what should not be in the Innowell Project website. With the information gathered about other similar websites I can propose a general

layout with some options and services that can be offered in the site to the Innowell Project group. They can decide what they want in the site and can offer new ideas in order to specify the design, organization of the content, services to be offered. Just after these specifications are defined the website can start to be developed. After it is ready, the website needs to be tested by different users in order to find any type of problems of organization, design or if something does not function properly, with the result of these tests changes need to be done to improve the site and make it work properly.

## 5.2 Previews research

I have a limited knowledge in PHP, HTML and Joomla! So before I could start designing or creating a website I needed to read and learn about it. I followed several tutorials from different websites. [14]

With these tutorials I learned that first of all and most important thing to do before creating a website is to have extremely clear what is the purpose of the site, who will be using it, what you want to offer in it, define all the information you will share. With this you need to start organizing in a piece of paper all the information, defining the structure of the menus and submenus, etc. Once all this is clear you can actually start using any tool you choose to create the site.

This thesis is not only the development of the web portal, it also have this documentation, so I needed to search for books, articles and all type of sources about the social network sites, definition, types, history, what influence have in working life. It was also necessary to research and study websites with similar purposes as ours will have in order to take ideas and impressions of how the layout should be, what services we should offer and how it should be organized.

To find similar websites I used a portal called SimilarSites [15], where you can type in the address of a website and it search for similar sites. This is not only useful of the theoretical part of the project but also to understand how social networks works, helping defining how it should be design our site. Some of the sites that I found were: [www.biznik.com](http://www.biznik.com), [www.dingle.fi](http://www.dingle.fi), [www.linkedin.com](http://www.linkedin.com), [www.ryze.com](http://www.ryze.com), [www.ecademy.com](http://www.ecademy.com), [www.partnerup.com](http://www.partnerup.com).

After analysing these sites I got some conclusions. The layout used in most cases consists in a header, two or three columns and footer, it depends on the type of information that you want to give and share. In most cases there was a login/registration module, it is free to register but to have access to the main content you need to be a member. They usually have a discussion forum, it is very common in social network sites for users to participate and comment their opinions about specific subjects. A calendar was not that common in these sites, but I think it could be quite useful if there will be meetings or courses arranged.

### 5.3 Defining the problem

When I got assigned this project, I got some general information about what the Innowell Project group wanted some general view about it. They wanted a web portal where companies, students, and Universities could participate, share information, always related with the well-being and health technology field.

After a meeting with the Innowell project manager Elina Kontio and my Thesis tutor and member of the project Reetta Raitoharju, they talked about the ideas they had in mind for the website specific things.

They wanted a website where users with a common interest could meet and discuss about it, share information, offer job or businesses opportunities. In other words, a Social Network Site, oriented mainly to Businesses but also to students and universities. It should have a place where users could discuss about any particular subject or topic. It should be able to store documents like C.V., publications and theses and these will have to be open for all users. They wanted to be able to arrange different type of events. It should be of course easy to use and most of the information accessible without registration.

The Innowell Project group is expecting three main types of users, companies, students and educational centres like Universities.

The companies can share information about their projects, publications, offer work placements, internships, create or find out about events related with their fields. Students can share their theses and publications. Upload their Curriculums Vitae so companies can find possible employees interested in this field. Educational centres can

share publications from their staff; they could organize events or seminars and promote it through the website

The website is a place to know and meet new people and companies related with the health and well-being technology field, in other words a business oriented social network. Companies should be able to show their logos and brand image to make it easier to identify them. The website should be used to make the first contact between companies, so it should have very good communication capability without compromising the privacy of users.

#### 5.4 Research conclusions

After surfing online through different social network sites I conclude that for our type of site it would be better to use a two column, header and footer layout, so we could have one column for menus and another wider for the content itself, always having the possibility of using a third column for extra services as a calendar or a list of upcoming events.

Because of the difficulties that I had and the lack of time to make a template that could reach the quality needed in a website, I chose to find a free template online. I tried to find one with similar characteristics as the figures and images used by the Innowell project group in their presentations and papers.

I found a template with many curves, similar to the images used by the project group. Its name is "rolnictwo\_15" and I download from DJoomla's website. [16]

#### 5.5 Defining a solution

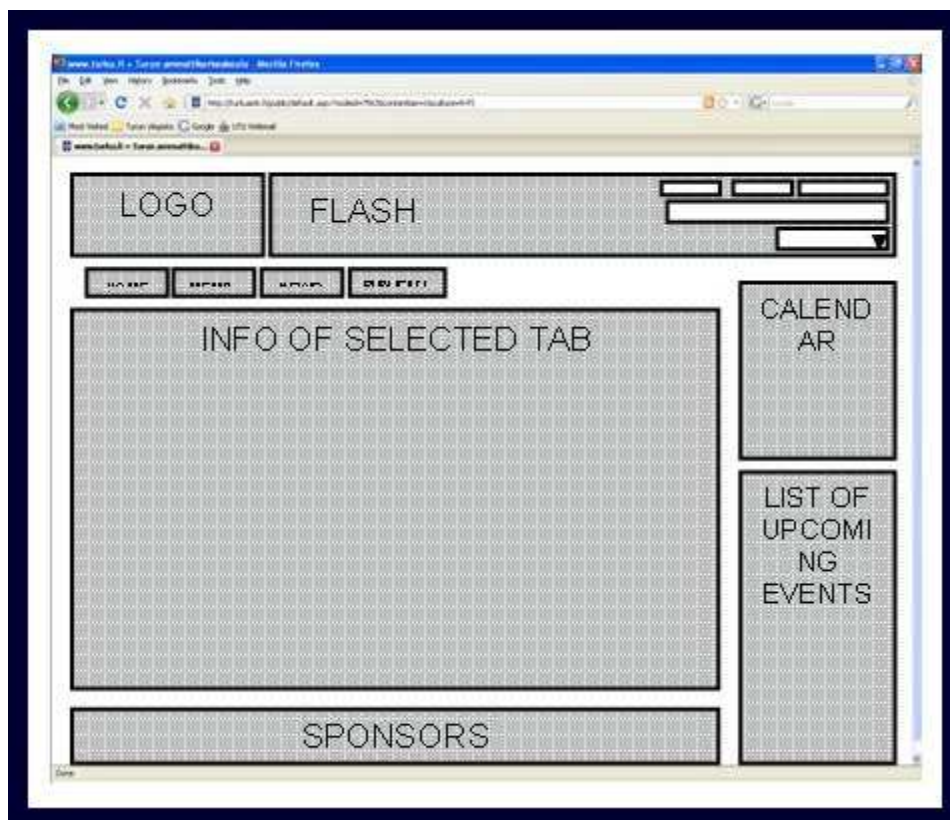
Before starting to work with the elaboration of the website in the computer, I needed to understand who was going to be the type of users that would visit the site and what they could need in order to create a useful portal. After the meeting with the member of the project, I was clear what type of services and option they had to be and after the research I found some other useful tools that could be part of the portal, such as polls, forums, etc.

I started to put these ideas on paper and tried to organize them in order to get a coherent site, easy to use and offering many options to its users. After many hours thinking about how to organize the site I got a general layout of the site.

Of course this was not the final general layout of the website, but it was very helpful when I started to install and configure components, modules, etc. With this, at least I had an idea of where should a module be or the menus that would have and what would be inside those menus.

After taking in consideration the conclusions taken from the websites checked in the previous research and the specifications given by the Innowell Project group I designed a first draft about how the website should be organized and how the layout should look.

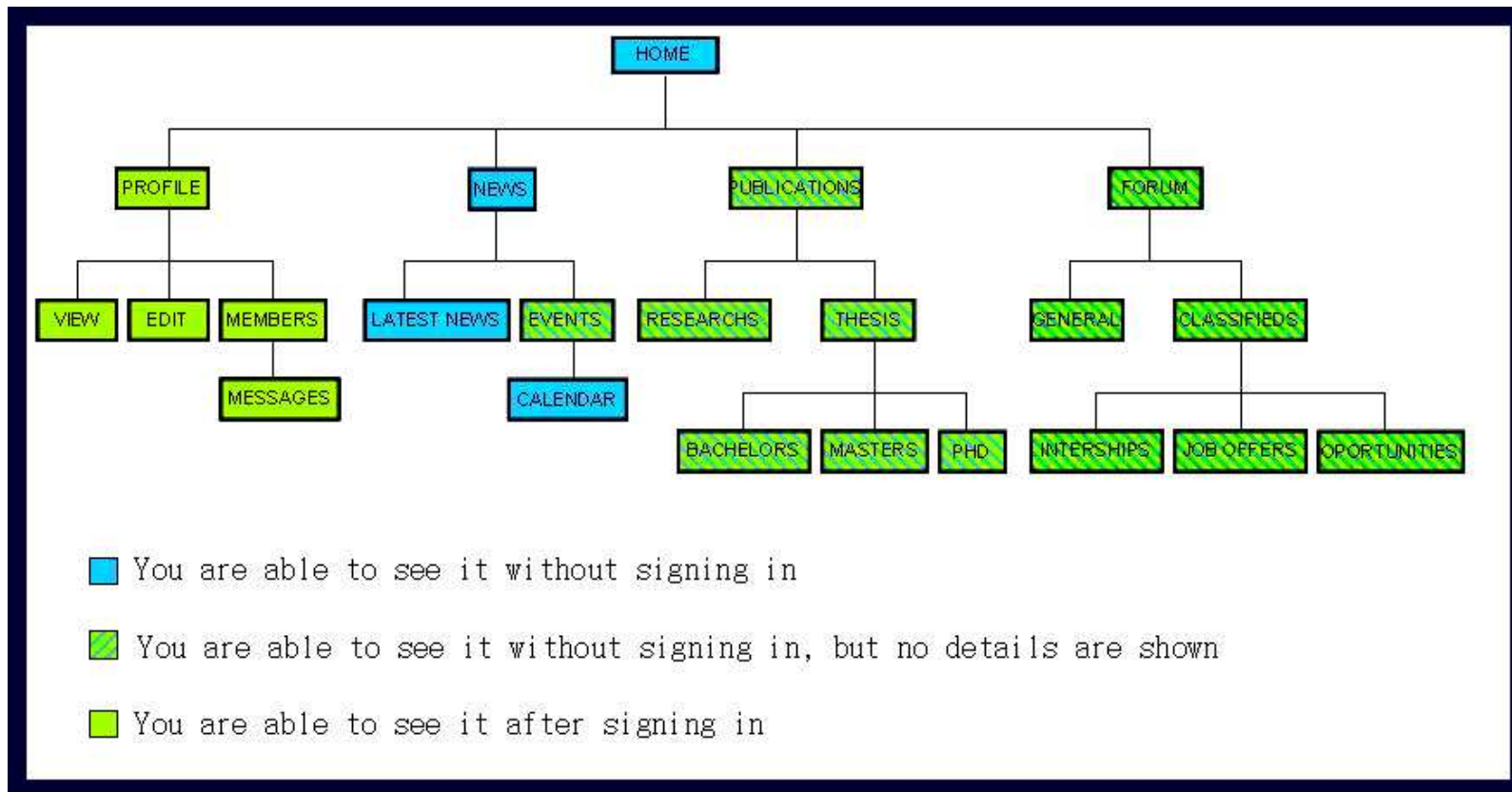
I presented an idea of how the layout should be in general.



**Illustration 1 : Idea of how the general layout of the website could be**

They liked this first approach, suggested some changes in the original plan and approved to start working on it.

### 5.5.1 General layout for the Innowell Project Website



### 5.5.2 About the framework

The framework to be used is Joomla!. According its website [17], it is a content management system (CMS) which has been elected best CMS for two consecutive years. It is possible to build Web sites and online applications.

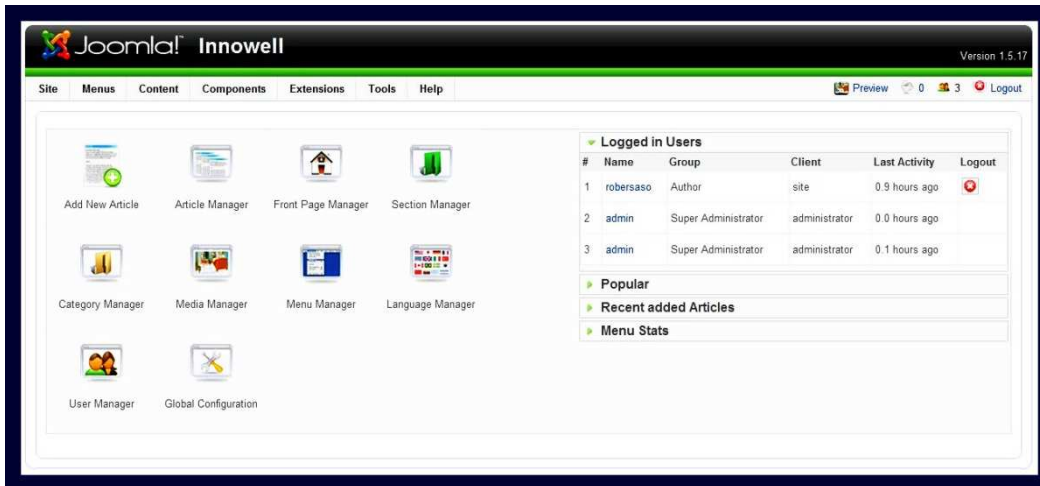
Some characteristics for which I chose to use it are that is open source so it does not have any cost; it uses a GNU/GPL license so it is available for everybody. Because of this, it has a massive platform that gives support, and develops new applications for it continuously, with collaboration from programmers all around the world.

A content management system is software that is used to control all the content you have on your website, no matter the type of it. The main objective of the CMS is to maintain the site, keeping it up-to-date in a very easy way, so the person in charge to give content and update the site do not need to have special technical knowledge, it is a very simple tool for this purpose.

Joomla is written in PHP, uses MySQL to store data and include many different features as RSS feeds, news flashes, blogs and more. The idea is that all the data is stored in a database, and when the site needs any information or application it will pull it from the database.

Joomla is divided into two parts, front-end and back-end. The front-end is the part of the component that is visible to the website users. It is displayed where ever we have included the label `<jdoc:include type="component" />` in the template. Its source code is in the directory *components* within the main directory of Joomla. The back-end is the part of the component that will be seen when we go to the site administrators. The component will show where you have specified in the back-end's template. The template for the back-end and front-end part is different. Its source code is in the directory *components* within the directory *administrator* in the main directory of Joomla

This is how the Back end of the website looks like.



**Illustration 2: Back-End of Joomla**

I will explain a little bit which elements you can work with in the back-end of your Joomla website.

**Articles** are some written information that you want to display on your site. It can have any type of data, it can have text, pictures, videos, etc. They can be used to create the pages of your site, where the information is shared.

In Joomla, the content of the site is completely separate from the formatting of the site. The same content can be shown in different ways or formats just by changing the template.

**Sections and Categories:** They provide an optional method for organizing your articles. A Section can contain at least one Category and each of these can have articles assigned to it.

With an example it is easier to understand these concepts. If you consider that "Dogs" and "Cats" are both "Pets", we could say that "Pets" is a Section with two different categories "Dogs" and "Cats". It is not possible to have an article that is in both "Cats" and "Dogs", because one article can be only in one category.

**Components** are mutually independent small applications that manage information within Joomla. They add utilities and functionalities improving the quality of the website or news article.

Some components are related to the Joomla core functions, such as item management or user management. Others are additional or different services and provide extra functionality. Some examples of these services that are provided by components are polls, modules, banners, feeds and more. They can be commercial and non-commercial components.

**Modules:** Modules are the small area blocks that surround the component. While you can only have one component in a page you can have multiple modules. You place modules in module positions. Module positions are encoded in Joomla! Template, so they will be different depending on the template. Joomla's administrator controls modules through the module manager.

Some Joomla modules are: Menu Selector template, Polls, News instant hit counter, etc.

**Plugins:** With the plugins we can modify the standard behaviour of Joomla and can intercept certain predetermined events to execute our code before or after the event.

A plugin is an object derived from class JPlugin. This class has methods that are defined hooks, they could also be called listeners. They are executed when the event associated with each class is triggered, so we would have to overwrite the hook functions we need and write our code in there.

## 5.6 Development of the website

First of all I had to research for components, extensions, modules and plugins. After surfing for many hours online, reading reviews and articles about them, and testing different components, extensions and modules for each service that the Innowell Project website wanted to offer, I decided to use the following ones.

**Community Builder**, downloaded from Joomla!polis website [18]. I used the free version. It is a component that transforms Joomla into a social networking powerhouse. It provides features and tools for the Joomla site user, like blogs, profiles and galleries.

I used this component for the Login module, registration form, user's profile, the menu option to show users and the possibility of communication between users thru the website.

**Jevents**, Is a project develop for Joomla which brings a calendar and the possibility to organize events in categories and show them in the calendar.

This component includes several Modules like the "Mini-Calendar module" (*jevents\_ca*) which is a small calendar that can be placed on any page and shows the events that are planned in it. Another module is the "Latest events module" (*jevents\_latest*) which gives a list with upcoming events. It also has a component called "Events legend" (*jevents\_legend*) it shows the events categories and its useful to limit what events are shown to specific categories.

The Jevents module includes as well a "Search Plugin". It includes the events from the event calendar when searching in the global Joomla search engine.

**Phocadownloads**, is a download manager for Joomla. It allows users to upload and download files to the site. It shows statistics of downloaded files. It is organized in Categories that are part of a Section, similar to the organization used for the Articles Manager.

**Kumena** ([www.kunena.org](http://www.kunena.org)), is a forum component that allows you to deploy a community forum for your website. It is integrated with the Community Builder so it uses the same username and password used to login to the general site.

It is possible to post a new thread, replay an existing thread, share links, show videos embedded in the thread, etc.

**FlexiContact**, is a contact form for users to send any type of feedback to the administrator of the website. You need to specify your name, email, subject of the message and the message itself.

### 5.6.1 Installing components

After downloading the extension (component, module or plugin) you have to install it, for that you need to go to the “Extension Manager Menu” that is in “Extension/Install/Uninstall”. Once you are at the Extension Manager Menu, you will see six different tabs named Install, Components, Modules, Plugins, Languages and Templates. All of them except the first one are to uninstall components, modules, etc. For our purpose we will use the first tab.

When you select the Install tab you will have three options to choose from:

- **Upload package file:** this option allows you to select a package file with the extension .ZIP. Then press the “Upload file & Install” button and it will automatically install the extension.
- **Install from Directory:** You can browse your extension in a directory and install it. Since it is uploaded to the server all the files separately there is a chance that some of them get corrupted during the transfer. That is why I recommend using the first option.

**Install from URL:** This option is to install the extension directly from a website or server. Just need to type the address of the extension in the website and install it.

### 5.6.2 Uploading the site to a free server

First of all we need to find a host server that supports PHP, for this project I used a free server called “000webhost” [19]. You just need to register and login. Once you are in you can select a domain if you have one, if not you can buy it or get a free subdomain. In my case, I chose this last option.

I will explain how to install Joomla in our Server but you can follow a tutorial taken from Joomla’s documentation. [20]

First you need to download Joomla’s latest installation package from their website [21]. With the help of an FTP program such as FileZilla [22] connect to the server with the information given in your server’s site; upload the files of the installation package and save it in a folder called “Joomla”.

Open an internet browser and go to [www.yourDomain.com/Joomla](http://www.yourDomain.com/Joomla) and the configuration wizard will be launched. Follow the next steps:

- **Language:** To select your Language.
- **Pre-Installation Check:** It checks if the system has the minimum requirements for the default configuration
- **License:** Shows the GNU/GPL License of Joomla! This means that it is Open Source, and it is free to use.
- **Databases:** Here you need to fill it with the information of the database where everything is saved. You need to create first the database in your Server with MySQL Manager.
- **FTP Configuration:** To choose whether you want to use FTP to upload files to your site. If so, you need the information about your FTP client
- **Configuration:** You need to put your web address, administrator's E-Mail and a Password
- **Finish:** It makes you remove or rename the installation folder from the server so you would be able to enter into the configuration site.

After all these steps, you will have your basic website with default template and core functionalities up and running. From this point, you need to start installing and shaping your website that you have had planned beforehand.

For the Innowell Project website, as said before, I chose a free template that was offered online. Normally you have to personalize the template to adapt it to your site, in my case I had to change the logo and the header Image; since I did not have a logo from the Innowell Project I decided to make a simple one myself using an open source image editor called GIMP [23]. The picture from the header was in reality two pictures next to each other, so I had to make from scratch the same design of the header but using the picture given by the project group. It was also necessary to change the width of the template's columns and the font size for some menus; this was possible by searching in the `template_css.css` file in the CSS folder that is located in the templates folder, for the specific columns and changes the values.

After setting the template, I started to install all the components, modules and extensions that I tested before in my local host. I configured them with information that suits the website and then run some tests, first myself and then others.

## 5.7 Tests and Feedbacks

Once the website was up and running on a free server it was time to test it, and check that all the components were working properly, and especially if it was easy to use for somebody that is not familiarize with the specific components. So designed a questioner that would help test users to go through all the elements of the website and asked their opinion on different matters such as font style and size, position within the website, how easy is to use that specific element, what could be improved and general comments.

I sent this questioner to family, friends and teachers asking them to register at the website and go through it with the help of the guide. This questioner can be found in Appendix 1 from this document.

In general I received a very positive feedback, people liked the template and they thought that it was fairly easy to use, and the components were appropriated. But there were some changes that were suggested in order to clarify and simplify the site, for example:

- The font in the boxes to fill in the registration form was difficult to read so it was suggested changing the size or colour of the font
- The help tips icons in the registration form should be next to the box and not underneath
- It was showing some code in the web link menu, it was suggested to remove it and show a message saying that there were no links in that category
- The header picture was not looking ok, and it was suggested to change it
- The Contact Us module should be in a link and not as a module

Most of these suggestions have been considered and changes have been done in the website.

## 5.8 Results

In this chapter I will be explaining how the website is made for the Innowell Project. You can find all the pictures illustrating the following explanation in Appendix 2.

After installing all the extensions that were planned for the site we got as a result a business oriented social network capable of giving all type of information about the health technology field to the users, connecting them with each other creating a network of people and companies from the same field.

When you enter to the website you get to the “Home” page where you can find different tabs in a top menu, leading you to “News”, “Events”, “Publications”, “Forum”, “Web Links” and “Contact Us”. On the left side we can see a module with the “Latest News” and a “Login” module. On the right hand you can find a calendar with the events of that month marked and a module of upcoming events, where it shows what events are coming soon. (Appendix 2, Illustration 1)

You are able to see all the information without logging in, but in order to participate in the forum, or share information in any of the different ways the site offers, you need to be logged in. If you are not a member, you can register by clicking on “register” in the bottom of the “Login” module.

To register you just need to fill some basic information about yourself or your company. Need to write your name, email, and your group as a user (Company, Student, University or Other), choose a username and a password. After this you will be able to login to the site. (Appendix 2, Illustration 2)

After logging in, you get once again to the “Home” page, and it will be really similar to the one you see when you get to the site the first time, the difference is that instead of the “Login” module, you have a “User Menu” module, where you can have access to your “Profile”, can see other users that are members of the site in the “Show Users” link, you can submit an article or a web link. All these options are available for registered users only. (Appendix 2, Illustration 3)

As we said, you can access to your profile in the user’s menu. Here you can see the information you are sharing, and can edit it. You can upload an image that will be seen

in your profile. It is important to make a clear profile, so other users can understand what activity you develop in your company. (Appendix 2, Illustration 4)

Staying in the user's menu, you can also find a link called "Show Users"; this will display a list of all registered users, with their usernames, groups, status and the possibility to send them an email through the site. This is useful the user is not sharing their email, this option allow users to be reachable to others without sharing their mail. It will use the email used at the registration. This list is ordered by group and then by username. (Appendix 2, Illustration 5)

In the top menu we can find the menu "News", it will display the latest news published by users (and approved by administrator), as well as article submitted by users as well.

The next menu is "Events" , here we find submenus called "Create Event" , "Search Events" and "Show Calendar". Their functions are quite obvious with the titles. In the "Create Event" submenu, it will appear a window were you need to type in information for the event as Subject, what category is it, start and ending date and time of the event, location, description and who can see this event (public, registered users only). (Appendix 2, Illustration 6). To see a big calendar, with the events marked and the possibility to create a new event by clicking on the specific date you need to click on "Show Calendar" (Appendix 2, Illustration 7)

In the "Publications" menu we can see the files that are available to download from the server, it is divided in categories and sections (as the articles) by the administrator. To download a file just need to click over it and then the green "download" button. (Appendix 2, Illustration 8). In this menu we can also find the place to upload a file to the server, after clicking over the "Upload Publication" submenu it will appear a screen were first of all you will need to select a category and a section, after this you can search for your file in your computer by clicking over "Select File" and then over "Start Upload", you can enter a title, a description of the file, author, license and other information about the file. (Appendix 2, Illustration 9).

The "Forum" menu leads you to the Category tab in the forum window. Here you can see the different forums there are with their categories . It is possible to see the recent discussions, or the discussions were you have participated and your profile, this last one is synchronize with the Community Builder so it will have the same information as in your general profile. (Appendix 2, Illustration 10).

To post a thread in a forum, you need to choose a forum and a category inside this one. Here you can choose to post a new thread or reply to one of the messages there.

Web links, this site was developed by Pedro Alvarez and can be seen in his Bachelors Thesis [24]. Here we find a set of categories and subcategories from medicine field where users can share interesting website links and store them in the closest category and subcategory. (Appendix 2, Illustration 11). To share a link you need to click in “Add Entry” on the top part of the Web Links window or in “Submit and We blink” on the user’s menu, then you need to add the tittle of the site, the URL, the language and a description of it, underneath this there is a box with an expandable tree with all the categories and subcategories where you need to find the best option for the web link you are sharing. Finally you need to accept the terms and conditions and click on “send”.

Contact Us is a form used to contact with the administrator of the site, just need to fill in some basic information as name and email, the subject or tittle of your text and the group you are part of (Company, Student, University, Others) and write your text. (Appendix 2, Illustration12)

## 6. Discussion

Social network websites are a huge part of our lives, every day millions of people login to one of these sites to chat, upload pictures, share information or even try to build a future, yes you read right, build a future with some business oriented websites. Many persons have one social oriented network site account where they have pictures from last weekend party and an account in a business oriented network site that is their serious and professional “face”.

But not too far in the future these two types of network website will merge into one big personal branding website. It will be the best way for people to promote themselves. The better personal brand you have, the more opportunities you will get.

A good way for companies to create more connections and ties with other companies in the same field and reaching new clients is through a business oriented social network, like the one developed for the companies and students in the health care field in this thesis.

The main goal of the Innowell project is to create a network of companies and persons that are part of the well-being field. The website developed for this project is a business oriented social network site which will be the medium through which companies and persons will communicate with each other.

The website developed for the project will allow the Innowell Project network to grow and maintain itself by sharing information from members. It will be an interesting place to visit having useful information and interesting news, the site will be regularly updated by administrators and users that collaborate by sharing their knowledge.

The site was developed with Joomla; this is a free Content Manager System from Google. Joomla is a very complete and useful tool for the development of these types of websites, not only for the power that it has in the development itself but because of the advantage given when updating the site, which is extremely important to keep a website alive.

In this thesis, you can learn about the social networks, how did they started and how they have evolved, the different types of social network websites and differences between them.

It is also possible to learn how to develop a project dividing the process into different stages, such as planning the tasks that are necessary to accomplish a bigger goal in a project time line, you need to make sure it is a realistic time and that you are working to make it happen. Then it is necessary to do a research before starting to do anything, you need to know about the subject. After researching you take your conclusions and start working on your project.

To develop a website it is extremely important to have all the ideas very clear. Before doing anything on the computer, you need to put in a piece of paper what you want to offer with your site, and start planning the organization of it. This is the most difficult part, the designing of the site. After you have worked on it over the paper, is time to start doing it in the computer with the developing tool that you choose.

Once you have a semi-final version of the site it is very important to check for vulnerabilities and mistakes on it. First you can run some tests, then is quite useful to show it to people from outside the project to go through it and test it, and reporting about any bad functioning or difficulties with the site. With these reports it is possible to improve the site and launch it for general use.

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## Appendix 1: Example of the questioner used to test the site.

### 1. The website in General:

- a. Layout (Colour, Font size, Font type, etc.): \_\_\_\_\_.
- b. Facility of use : \_\_\_\_\_.
- c. What could be improved : \_\_\_\_\_.
- d. Other Comments : \_\_\_\_\_.

### 2. Login Module:

- a. Layout (Colour, Font size, font type, etc.) : \_\_\_\_\_.
- b. Position within the site : \_\_\_\_\_.
- c. Facility of use : \_\_\_\_\_.
- d. What could be improved : \_\_\_\_\_.
- e. Other Comments : \_\_\_\_\_.

### 3. Register Form:

- a. Layout (Colour, Font size, font type, etc.) : \_\_\_\_\_.
- b. Position within the site : \_\_\_\_\_.
- c. Facility of use : \_\_\_\_\_.
- d. What could be improved : \_\_\_\_\_.
- e. Other Comments : \_\_\_\_\_.

### 4. News / Articles

- a. Layout (Colour, Font size, font type, etc.) : \_\_\_\_\_.
- b. Position within the site : \_\_\_\_\_.
- c. Facility of use (Submit News/Articles) : \_\_\_\_\_.
- d. What could be improved : \_\_\_\_\_.
- e. Other Comments : \_\_\_\_\_.

### 5. Event menu

- a. Layout (Colour, Font size, font type, etc.) : \_\_\_\_\_.
- b. Position within the site : \_\_\_\_\_.
- c. Facility of use (Create/Search an Event) : \_\_\_\_\_.
- d. What could be improved : \_\_\_\_\_.
- e. Other Comments : \_\_\_\_\_.

## 6. Publications menu

- a. Layout (Colour, Font size, font type, etc.) : \_\_\_\_\_ .
- b. Position within the site : \_\_\_\_\_ .
- c. Facility of use (Upload/Download a File): \_\_\_\_\_ .
- d. What could be improved : \_\_\_\_\_ .
- e. Other Comments : \_\_\_\_\_ .

## 7. Forum

- a. Layout (Colour, Font size, font type, etc.) : \_\_\_\_\_ .
- b. Position within the site : \_\_\_\_\_ .
- c. Facility of use (Read/Publish a Thread) : \_\_\_\_\_ .
- d. What could be improved : \_\_\_\_\_ .
- e. Other Comments : \_\_\_\_\_ .

## 8. Web links

- a. Layout (Colour, Font size, font type, etc.) : \_\_\_\_\_ .
- b. Position within the site : \_\_\_\_\_ .
- c. Facility of use (Search/Publish a Link) : \_\_\_\_\_ .
- d. What could be improved : \_\_\_\_\_ .
- e. Other Comments : \_\_\_\_\_ .

## 9. User Menu

- a. Layout (Colour, Font size, font type, etc.) : \_\_\_\_\_ .
- b. Position within the site : \_\_\_\_\_ .
- c. Facility of use : \_\_\_\_\_ .
- d. What could be improved : \_\_\_\_\_ .
- e. Other Comments : \_\_\_\_\_ .

## 10. Contact us Module

- a. Layout (Colour, Font size, font type, etc.) : \_\_\_\_\_ .
- b. Position within the site : \_\_\_\_\_ .
- c. Facility of use : \_\_\_\_\_ .
- d. What could be improved : \_\_\_\_\_ .
- e. Other Comments : \_\_\_\_\_ .

## 11. General Comments : \_\_\_\_\_ .

## Appendix 2: Website results.

Illustration 1, Home view (before jogging in)



Illustration 2, Registration form

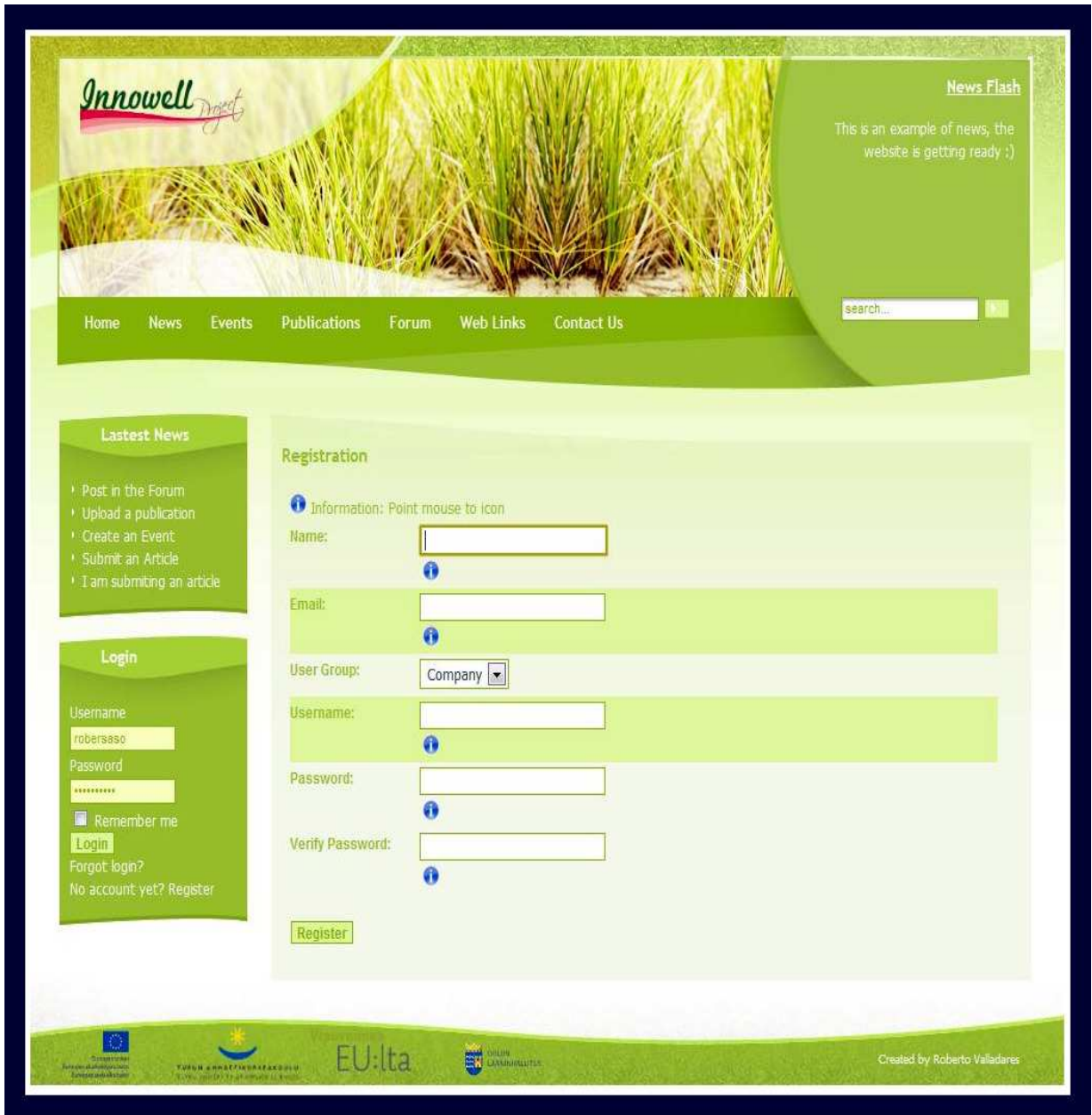


Illustration 3, Home view (After jogging in)



Illustration 4, Profile view

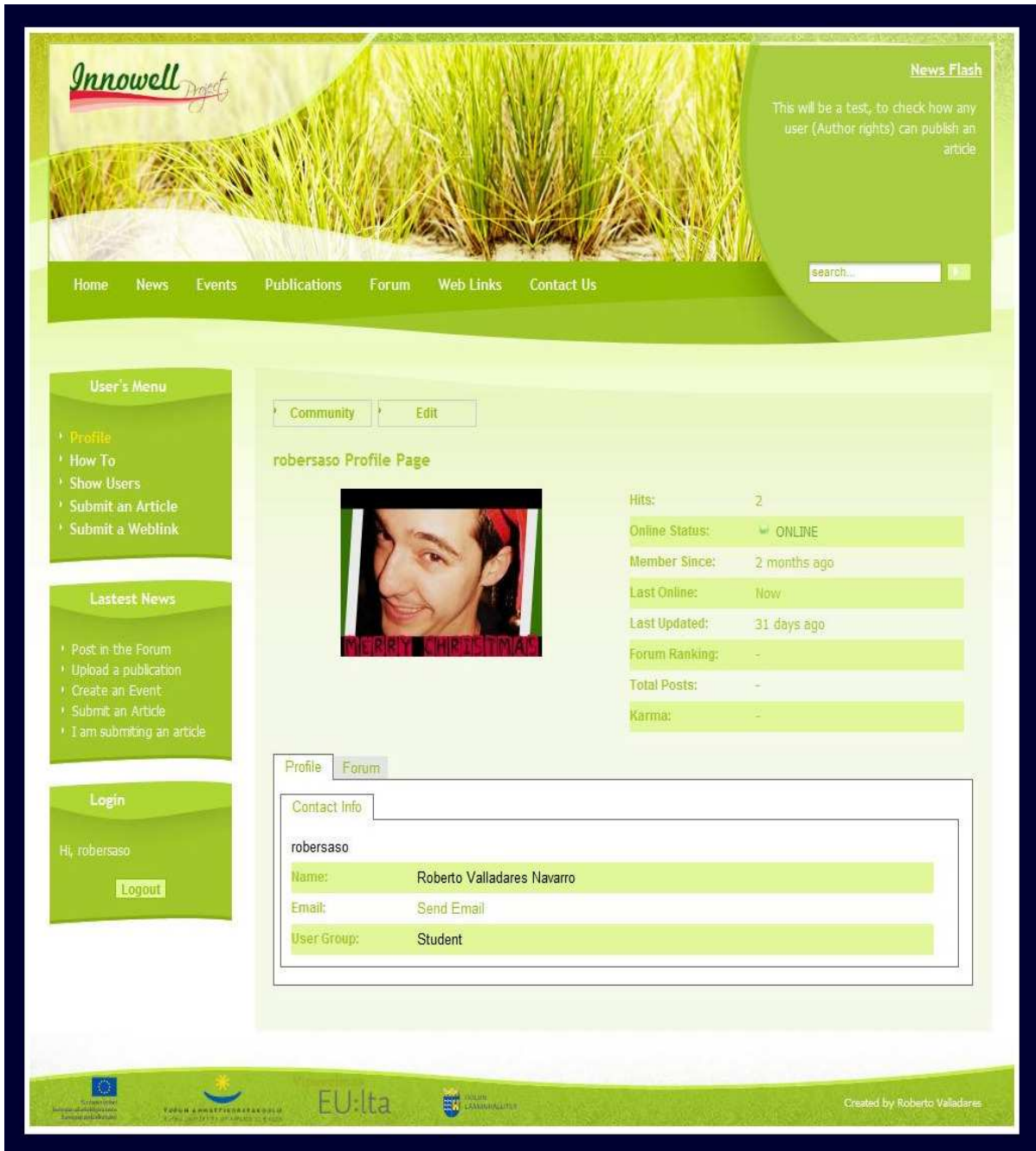


Illustration 5, Show Users screen

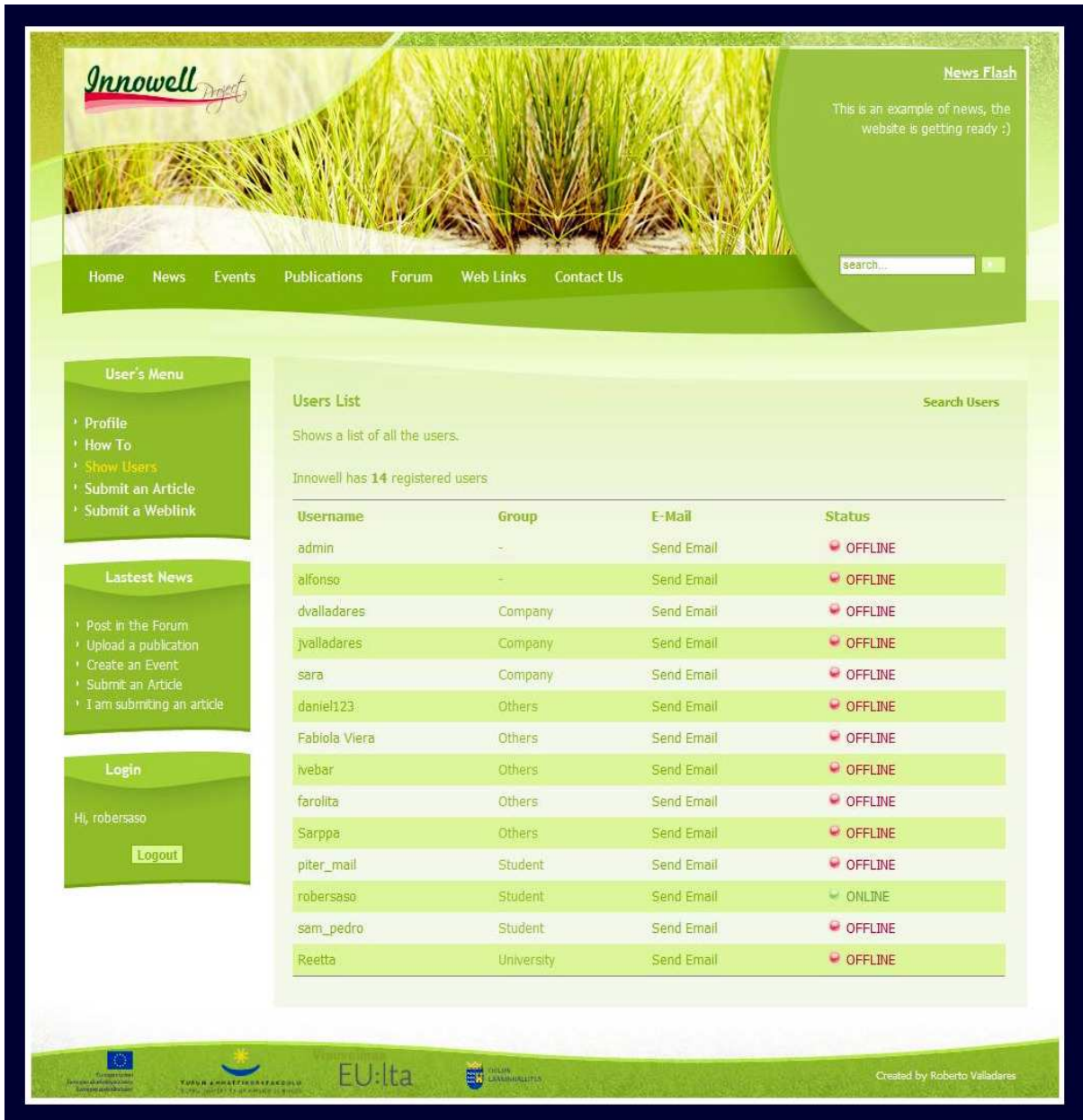


Illustration 6, Show calendar screen

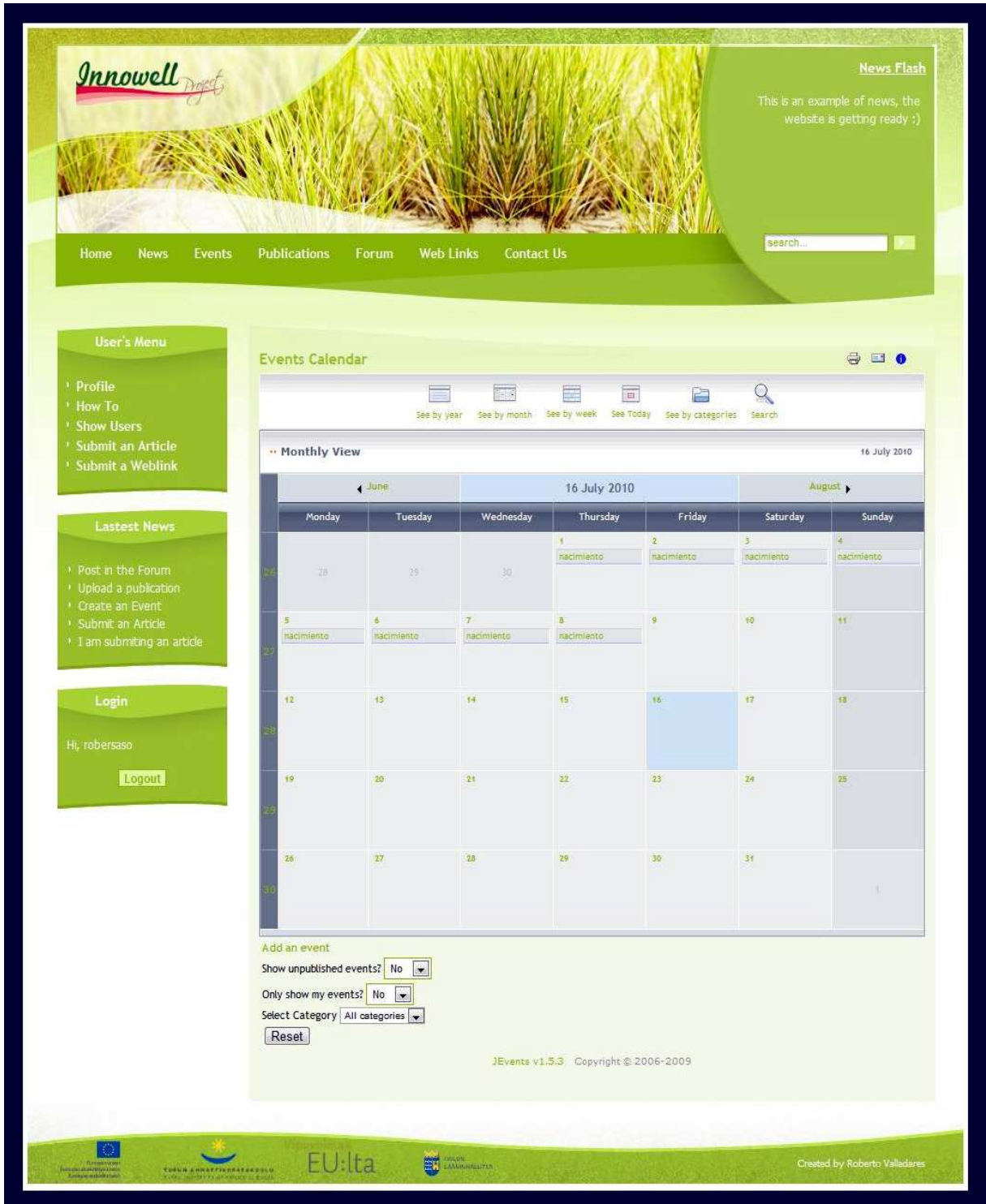


Illustration 7, Create an Event screen

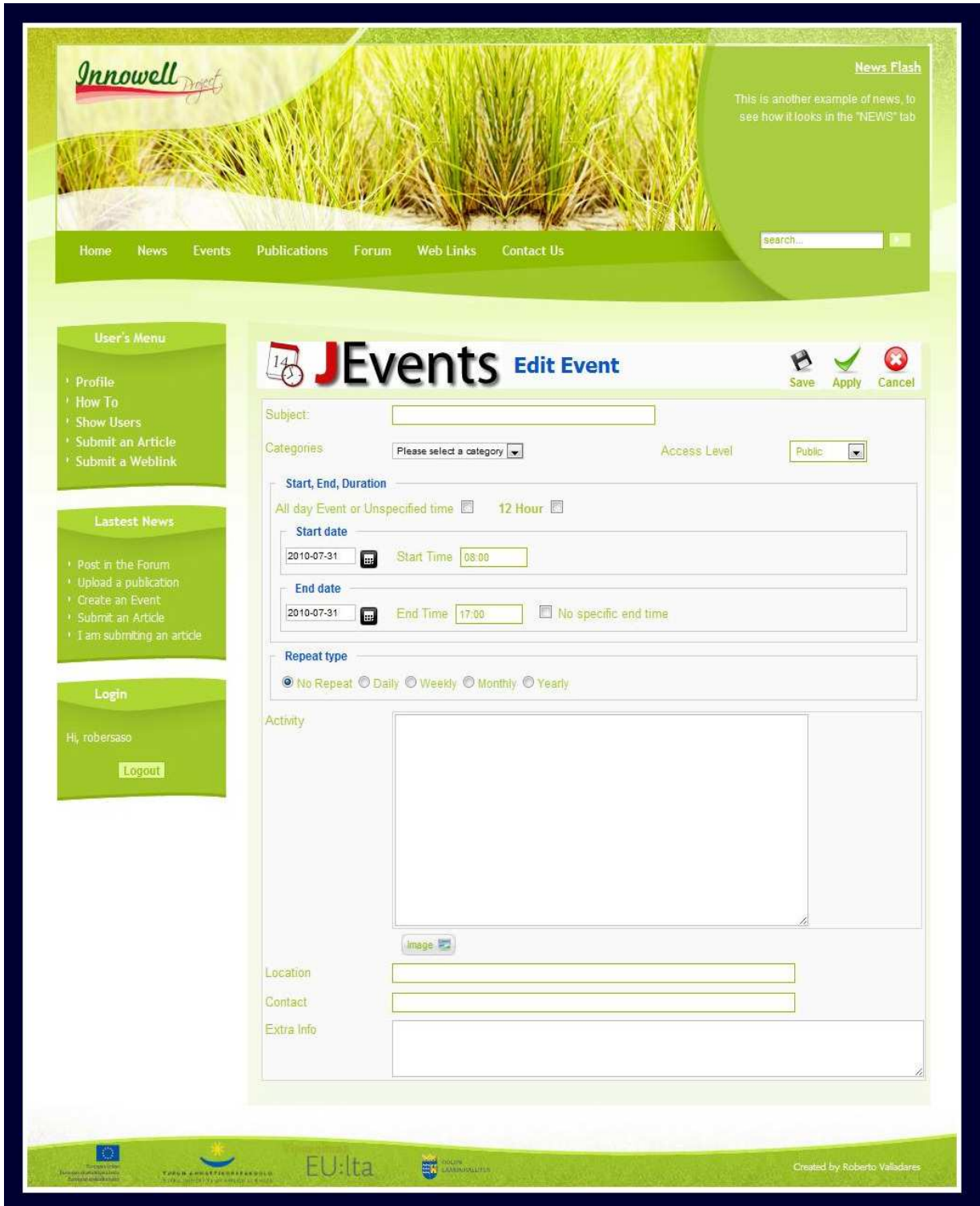


Illustration 8, Download a Publication screen

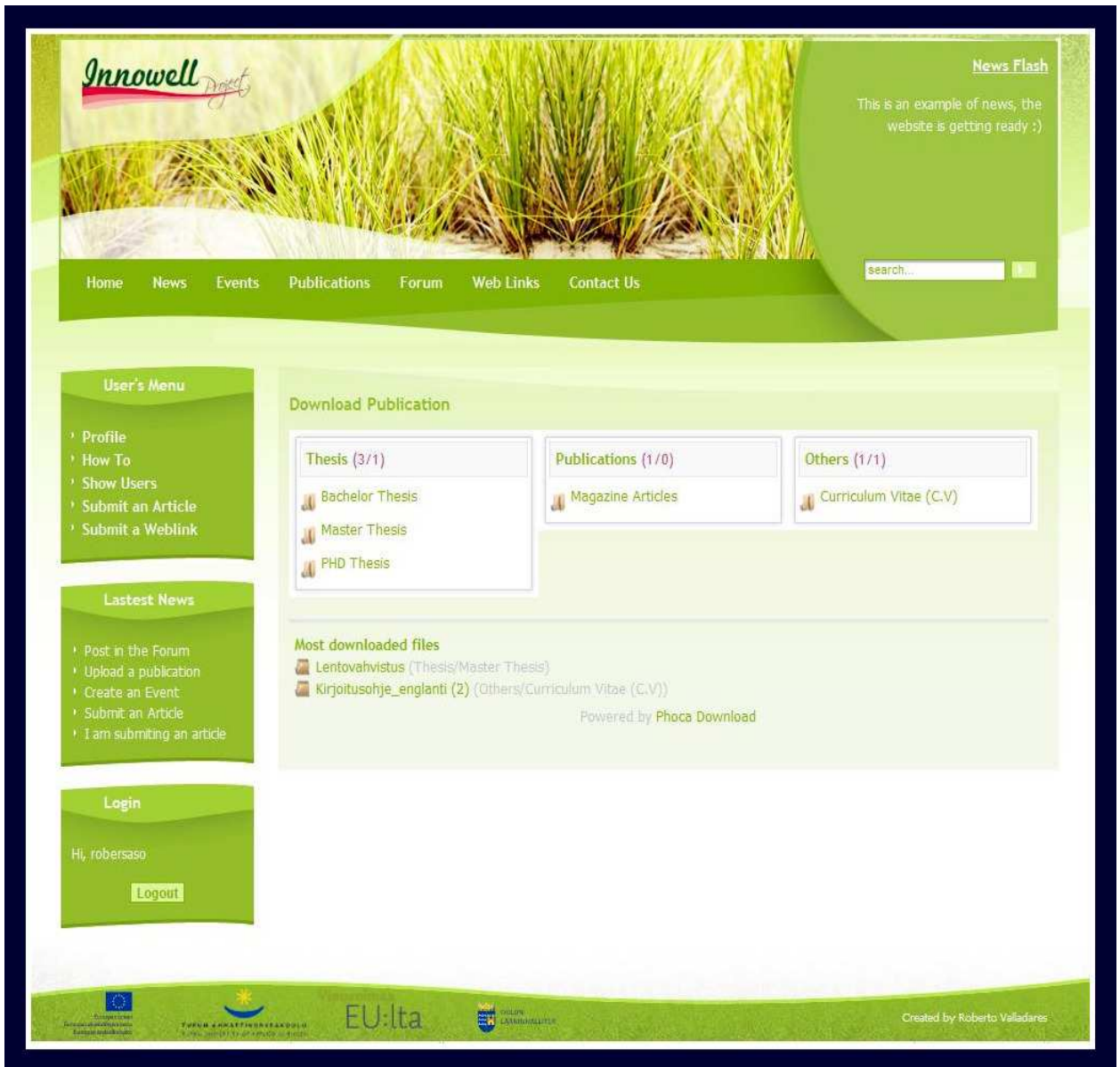


Illustration 9, Upload a publication screen

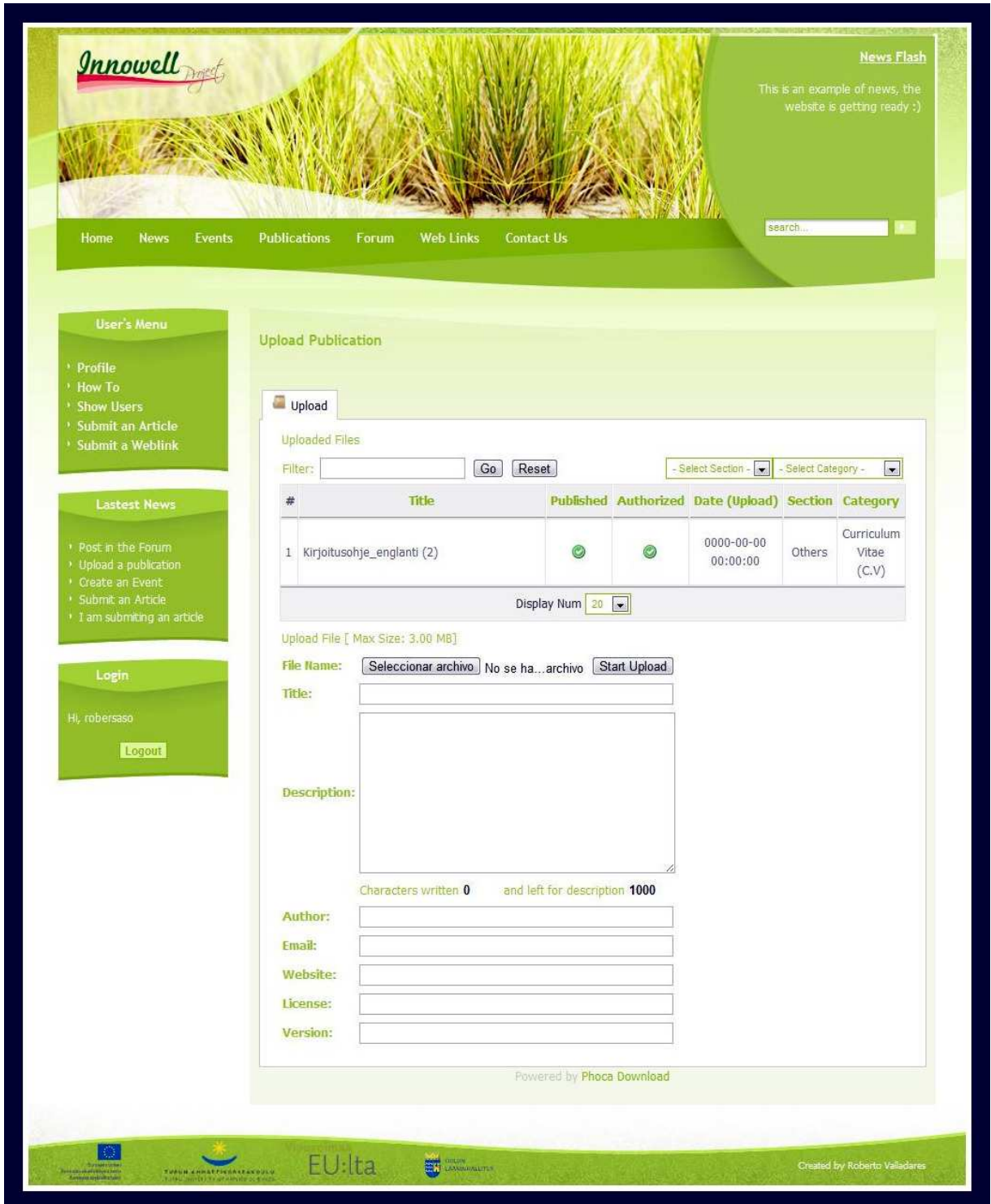


Illustration 10, Forum screen

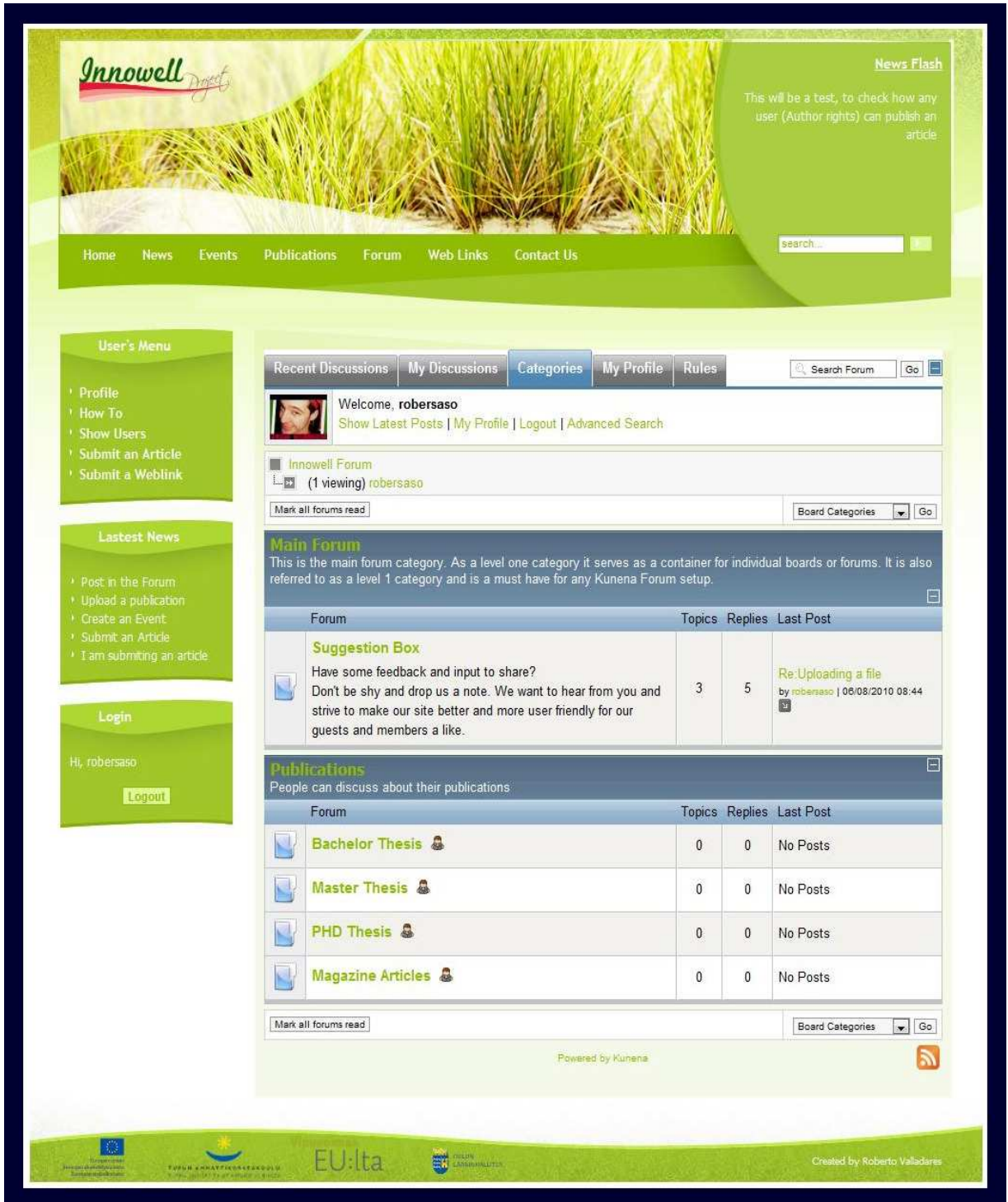


Illustration 11, Web links screen

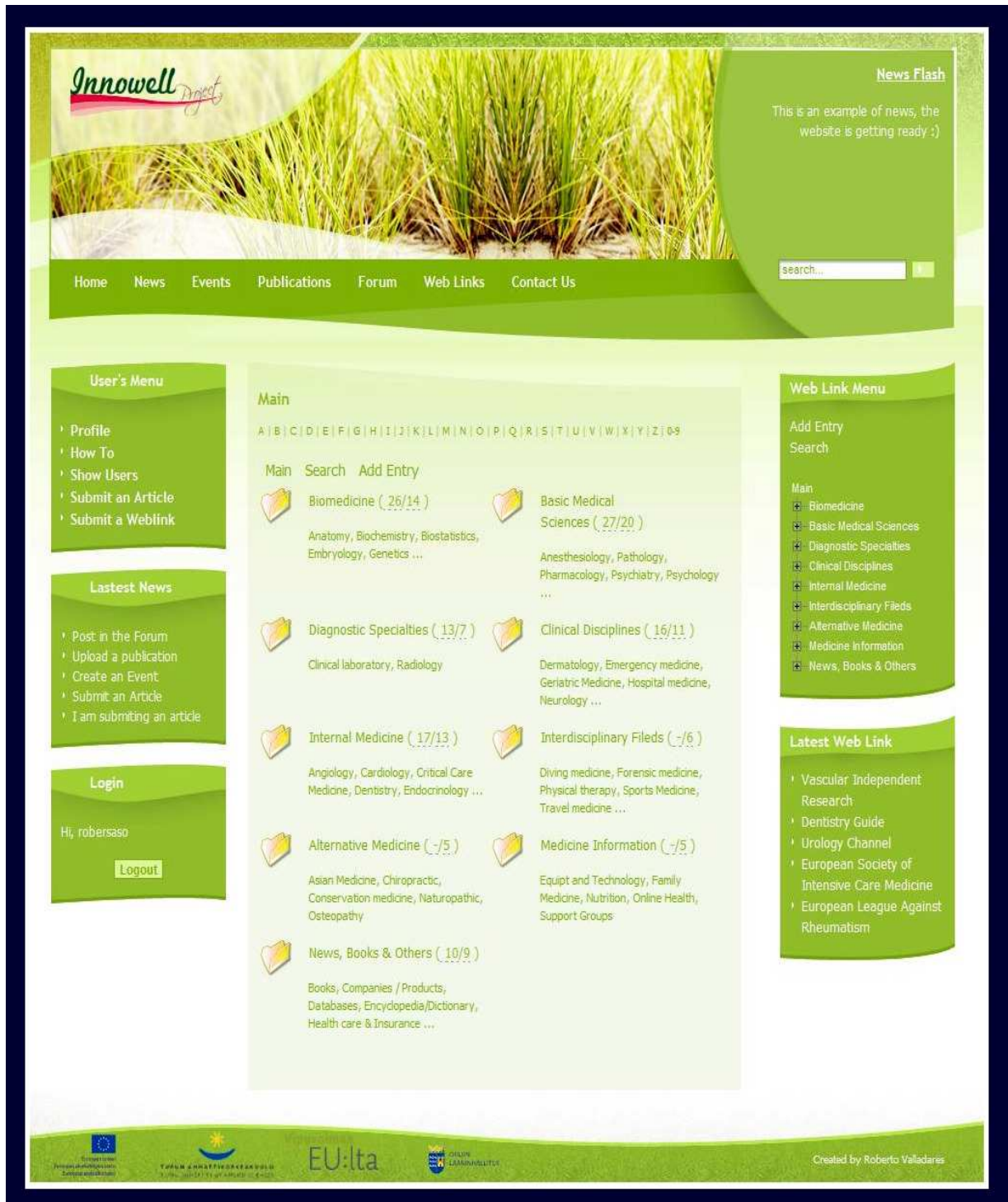


Illustration 12, Contact Us screen

