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# LEAGUE

## Limiting online sexual Exploitation and Abuse Gender based on Underaged boys by Educating experts

### D3.2 Internet Platform



Funded by the European Union CERV programme under Grant Agreement No. 101049294. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

## Project

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## Deliverable

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## 1. Executive Summary

The primary objective of Deliverable 3.2 is to outline the developments made in the direction of establishing LEAGUE internet platform and provide a detailed user guide for the different users' roles. The operational website as a whole, the infrastructure that is being used, the organisation of the code, and the architecture that has been put in place are all presented in this deliverable, together with the implementation stage of each individual component. Furthermore, a demo with screen shots describing how the internet platform can be utilised by users with different roles as well as the capabilities of each role is presented.

Additionally, this document provides a technical evaluation of the initial iteration of the LEAGUE internet platform through performance benchmarking experiments carried out on the system's constituent parts to confirm the proper operation and interoperability of the various integrated modules to satisfy the needs of the use cases for the end users.

The infrastructure that was used to create the internet platform, as well as the integration strategy and current state of each component's development, are all documented and summarised. In this deliverable, functional results and screenshots are shown.

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## Acronyms & Abbreviations

Term	Description
CMS	Content Management System
CSAM	Child Sexual Abuse Material
CSS	Cascading Style Sheets
GDPR	General Data Protection Regulation
HTML	Hypertext Markup Language
ICA	International Child Abduction
KB	Knowledge Base
NLP	Natural Language Processing
NLU	Natural Language Understanding
OCSA	Online Child Sex Abuse
PHP	PHP: Hypertext Pre-processor
QA	Quality Assurance
RDBMS	Relational Database Management System
SQL	Structured Query Language
UI	User Interface
UX	User Experience

## 1 Introduction

The term "child online sexual abuse" describes the sexual exploitation of children who are using digital communication tools like the internet, mobile phones, and other types of technology. This can refer to a variety of actions, such as the creation, distribution, and ownership of CSAM, as well as online grooming and live streaming of abuse.

Child sex abuse online is a severe crime, so it is crucial to alert the proper authorities of any suspected incidents. Children and teenagers should be taught how to keep safe online, including how to spot and disclose any questionable activity.

The overall technological purpose of the LEAGUE is the creation of an internet platform for boys aged between 10 to 18 that includes peer-to-peer support, alternative psychological care, information about helplines, and children's rights. The objective is to inform boys of their rights and to assist them if they have been the targets of child sex abuse online.

The internet platform will have a Discussion Board as a helpful resource for all users and partners. Simplicity, adaptability, Web standards, cross-platform compatibility, spam protection, GDPR compliance, and child protection requirements will be its main priorities. All other project content used to raise awareness will be supplied to the platform as dynamic HTML5/CSS3 web pages. By giving them the means to encourage one another, receive alternative psychiatric assistance, and learn about their rights and helplines, the platform's creation will assist victims of online child sexual abuse.

The first version of the LEAGUE internet platform deliverable (D3.2 Internet Platform) identifies the deployment and integration status of the platform's many components and the subsequent steps for each one. The results of WP2 will be reflected in the "Training material" section of the LEAGUE platform, where the produced training materials are publicly provided. WP4's chatbot, when available, will be also accommodated in the LEAGUE platform via a dedicated button, serving as a source of information to children regarding online child sexual abuse. Last, the project's dissemination results will be further promoted via the platform's "News" section.

The main goal of the current deliverable is to outline the developments have been made towards the implementation of the operational LEAGUE internet platform into place and provide an analytical demo for all the different kind of users.

## 2 Components

For the purposes of the LEAGUE project, two components that work together and create the LEAGUE internet platform were created.

These components are presented below:

- I. LEAGUE website – created to display information about the LEAGUE project
- II. E-Platform - a modern internet platform created to bring together many groups in the same space to discuss a subject, express an opinion, or provide helpful information addressing difficulties related to online children abuse.

### 2.1 Website

The LEAGUE website intends to disseminate details about the LEAGUE project as well as offer helpful information on matters related to the child abuse online. It is designed as an educational resource and includes a substantial amount of original content, including relevant blog posts, details on each partner's company, and details about the goals and organisation of the project. The data on the website is all easily navigable thanks to website features, the general contact form, the social media link icons, the news section, and the navigation bar and link buttons. This makes interacting with the website as simple and straightforward as possible.

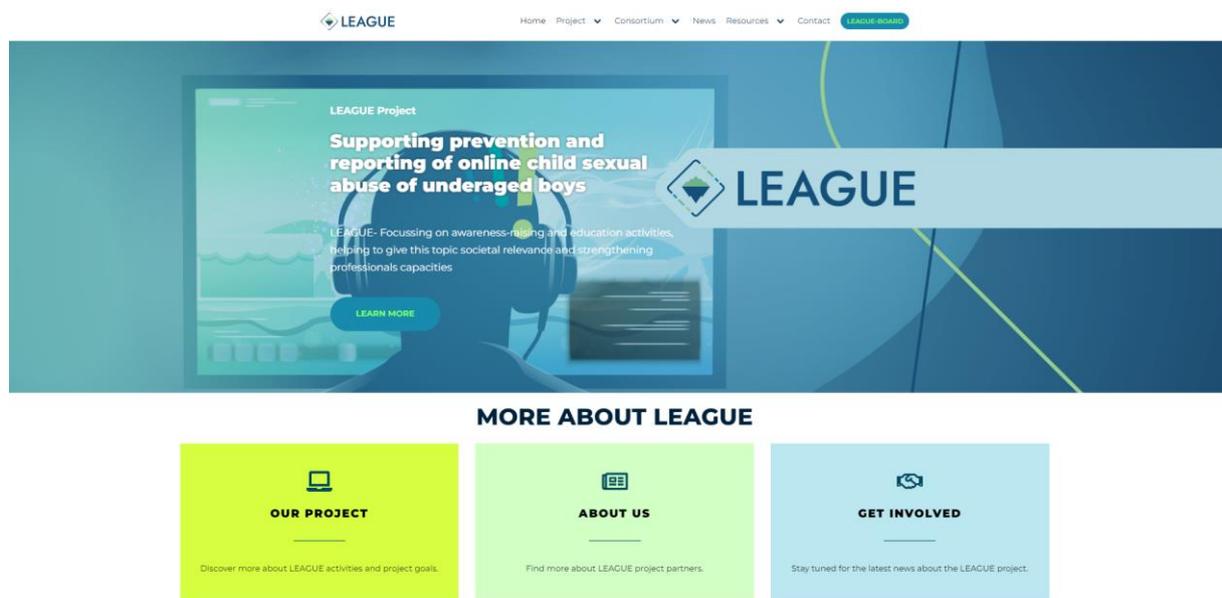


Figure 1: LEAGUE website home page

#### 2.1.1 Technical

On the server side, the project's User Interface was created using the well-known PHP programming language. An efficient and potent tool for developing dynamic and interactive web pages is PHP version 7, which is now available. A web page in HTML5 is displayed in the user's browser after the final format has been prepared on the server. To format the different pages (colours, layout, fonts, etc.) and adapt the presentation for various devices, we used CSS3 (style sheet language). In addition, we employed the JavaScript programming language, more

specifically the jQuery library, for the database connection functions and interactive features linked to user navigation. We used MySQL, an open-source relational database management system, to create, store, and maintain the system database (RDBMS). The most recent version of MySQL is a relational database management system that is extremely quick, dependable, and user-friendly and is based on SQL (Structured Query Language) suited for storing our data, developed, distributed, and supported by Oracle Corporation. We decided to utilise WordPress as our main content management system (CMS) since it is free and open-source software that enables users to edit their online material without the need for in-depth coding knowledge. The well-known web-hosting program Apache Web Server makes the e-platform accessible.

### 2.1.2 User Management System

WordPress features a user management system out of the box with a wide range of user roles. Some of these positions were given to website users based on our needs:

- I. Administrator – An administrator job is given to each project partner. The most potent user role is the administrator role. Users who have the administrator status can edit and remove any user's posts in addition to adding new ones. They can also add, modify, and remove plugins and themes.
- II. Visitor - A user who is limited to viewing and navigating the website's pages and subpages.

### 2.1.3 Sitemap

The website's content is well organised and simple to use. It is organised into block sections, each of which offers a distinct type of information about the LEAGUE project. Users can locate a block section (header) that contains hyperlink icons for the project's social media on the website's main page when they access it. Moving on to the following part, users can traverse the website's pages and subpages using the horizontal navigation bar to the left of the project's logo on the screen.

These pages are the following:

- **Project** - A page with information about the LEAGUE project.
- **Objectives and structure** - Consists of an organised table listing the project's activities that are intended to accomplish the five primary goals.
- **Results from the project** - Contains an explanation of the short-term, mid-term and long-term expected results of the project.
- **Consortium** - A page with the logos of each consortium member. Each logo serves as a connection to a subpage that includes a description of each partner's business, a logo, and a URL to the partner's website.
- **News** - Contains articles and news regarding the LEAGUE project.
- **Contact** - A page that provides all necessary contact information and a contact form.
- **Blogposts** - Constitutes the blog page of the website. Contains blog articles regarding the LEAGUE Project.
- **Training Materials** – A page that contains the training material created through the project.
- **Glossary** – A page that presents a glossary of domain terms.
- **Deliverables** – Contains all the deliverables regarding the LEAGUE project.

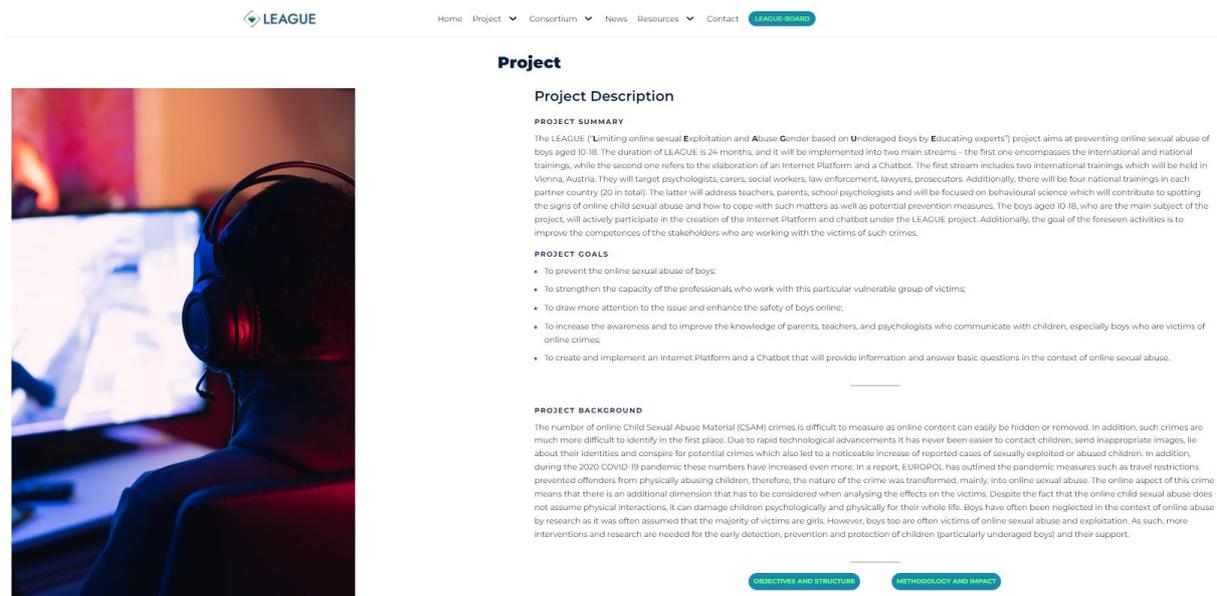


Figure 2: Project page of LEAGUE website

Users can access the project's e-platform component by clicking on a button named "LEAGUE-BOARD" that is located on the right side of the menu.

For consistency's sake, the header formatting and disclaimer were left the same on all pages, and content like text and photographs were added as needed, based on the requirements of each page. The content of the LEAGUE website was provided by all consortium partners after monthly meetings and was finalised using the content that is up and running at the time of writing the current deliverable.

### 2.1.4 Website User Interface (UI) / User Experience (UX)

Some of the key UI design principles were taken into account when creating the UI.

The following are some of the UI design principles that we considered:

- **Place the user in control of the interface**

We gave users' access to the UI so they could always retrace their navigational steps. Users don't need to be so careful because it is simple for them to go back and repair mistakes if they do make them.

- **Make it comfortable to interact**

The interface is easy to navigate, it is clear and self-evident. Visual cues are provided which allows users to navigate easily through the interface. The UI doesn't contain any information that is irrelevant and it's simplified in order to make it comfortable to interact.

- **Reduce cognitive load**

The amount of mental processing capacity needed to use a product is referred to as the cognitive load. Users won't need to think or exert themselves too much to engage with the UI because to its simplification.

- **Make user interfaces consistent**

Each page has a consistent user interface. The website uses the same fonts, colours, and iconography throughout. To establish hierarchy and clarity, we strategically used typeface. Used multiple font sizes and text arrangements to improve readability and legibility.

When the user experience (UX) of the website was built, the same logic of consideration of some of the core design UX concepts was implemented.

Some of the **UX** design principles that we took under consideration are:

- **Clear hierarchy**

We divided the structure of the included pages into two divisions to provide easy navigation over the entire LEAGUE website design. The horizontal navigation bar with the website's key parts is visible when users access the home page. This is the primary hierarchy section. They will observe that more content subcategories appear when they hover over this navigation bar. These comprise the second level of the hierarchy.

- **Consistency**

Users anticipate that websites will have some features in common with other websites they frequently visit. They can easily acquire accustomed to the new website as a result without incurring any further learning costs.

- **Typography**

Typographic decisions can dramatically affect how readers interpret the language, strengthening or weakening the message. Typography may increase usability and accessibility in a design. To establish hierarchy and clarity, we strategically used typeface. To improve readability and legibility, several font sizes and text arrangements are utilised.

## **2.2 LEAGUE Board (forum)**

### **2.2.1 Technical**

On the server side, the project's User Interface was created using the well-known PHP programming language. An efficient and potent tool for developing dynamic and interactive web pages is PHP version 7, which is now available. A web page in HTML5 is displayed in the user's browser after the final format has been prepared on the server. To format the different pages (colours, layout, fonts, etc.) and adapt the presentation for various devices, we used CSS3 (style sheet language). In addition, we employed the JavaScript programming language, more specifically the jQuery library, for the database connection functions and interactive features linked to user navigation. We used MySQL, an open-source relational database management system, to create, store, and maintain the system database (RDBMS). The most recent version of MySQL is a relational database management system that is extremely quick, dependable, and user-friendly and is based on SQL (Structured Query Language) suited for storing our data, developed, distributed, and supported by Oracle Corporation. We decided to utilise WordPress as our main content management system (CMS) since it is free and open-source software that

enables users to edit their online material without the need for in-depth coding knowledge. The well-known web hosting program Apache Web Server makes the e-platform accessible.

### 2.2.2 User Management System

- I. Unregistered User - Visitor: Users can browse the public topics and forum categories, but they are unable to edit them or upload new content.
- II. Registered User – Subscriber: Users can create new public topics, view the forum categories and associated public topics, and post to any public subject.
- III. Registered User – Keymaster: The user can view the forum categories, the public topics within those categories, the hidden topics (which are only visible to Keymasters Users), create new public topics, new hidden topics, submit posts to any public or hidden subject, and delete posts or topics.

### 2.2.3 Sitemap

When users access the website's home page, they can find a block section (header) at the top that includes hyperlink icons for the project's social networking platforms. Moving on to the following section, the project's logo can be seen on the left side of the screen, along with a horizontal menu that allows users to browse the website's sections.

These pages are listed below:

- **LEAGUE Board Login** - Contains a form that users can complete to log into the internet platform.
- **LEAGUE Board Register** - Contains a form that users can complete in order to subscribe to internet platform.

The horizontal navigation menu also includes a "Home" button that users may use whenever they need to go to the home internet platform's page and a "Visit website" button that links users to the LEAGUE project's website.

Users can use the search bar in the following block section to locate areas of the internet platform that are pertinent to the content they have entered in. A structured table that moves vertically provides data about each forum category's title, the number of subjects in each forum category, the number of postings in each topic, and a timestamp that shows when a user last edited or posted on each forum category.

The footer, the final element on the page, has two links to the "Term of Use" and "Privacy Policy" of the LEAGUE's website and board. It also contains the project's disclaimer.

For the sake of uniformity, the header formatting and disclaimer were left the same on every page.

#### 2.2.3.1 Open/Hidden forum categories, topics – User permissions

The LEAGUE Board's topics and categories are separated into two groups. The obvious and the covert. All users can access the open discussions, but only subscribers and keymasters can edit them. Visitors must sign up for the e-platform in order to add a post or start a new discussion. Only the keymasters have access to and control over the concealed topics. Each

consortium partner has a user account with the keymaster user role. That attempts to make it possible for them to communicate information without this kind of information being made public.

#### **2.2.4 E-Platform User Interface (UI) / User Experience (UX)**

The e-UI/UX platform was designed to be consistent with the LEAGUE project's website. When the e-platform was created, the same concept of taking into account some of the core UI/UX design concepts was used.

The following are some of the UI design principles that we considered:

- **Place the user in control of the interface**

We gave users' access to the UI so they could always retrace their navigational steps. Users don't need to be as careful because it is simple for them to go back and repair mistakes if they do make them. When a user makes a mistake, appropriate error messages are displayed that explain what went wrong and provide fixes. The error messages are simple, understandable, and written in plain language.

- **Make it comfortable to interact**

The user interface is simple, self-evident, and straightforward to navigate. Users are able to simply navigate through the interface because to the visual cues that are offered.

- **Reduce cognitive load**

The amount of mental processing capacity needed to use a product is referred to as the cognitive load. Users won't need to think or exert themselves too much to engage with the UI because to its simplification.

- **Make user interfaces consistent**

Each page has a consistent user interface. The website uses the same fonts, colours, and iconography throughout. To establish hierarchy and clarity, we strategically used typeface. Used multiple font sizes and text arrangements to improve readability and legibility.

- **Design**

The board's development strives to avoid inundating users with information that is pointless or useless. The design is simple to prevent people from becoming sidetracked by it and help them concentrate on their objectives.

When the user experience (UX) of the website was built, the same logic of consideration of some of the core design UX concepts was implemented.

The following are a few of the UX design principles that we considered:

- **Consistency**

The e-platform was created with a lot of the characteristics of a forum website. Users anticipate that websites will have some features in common with other websites they frequently visit. They can easily acquire accustomed to the new website as a result without incurring any further learning expenses.

- **Typography**

Typographic decisions can dramatically affect how readers interpret the language, strengthening or weakening the message. Typography may increase usability and accessibility in a design. To establish hierarchy and clarity, we strategically used typeface. To improve readability and legibility, several font sizes and text arrangements are utilised.

### **2.2.5 Features**

To simplify and make user interaction with the Board easier, it has a number of features. Subscribed users can easily edit, remove, or add a new topic or post from the front end by using the horizontal menu that shows at the top of subjects and posts. A post can be formatted using the straightforward HTML editor. A toolbar is displayed over the topic. This toolbar adds basic HTML elements to the subject or reply form to help users format their posts more effectively.

By clicking the Subscribe link, which is typically located at the top of the forum or subject, users can subscribe to a particular forum category or topic. By taking this action, users can stay up to date and receive email notifications whenever a new post is made to the topic they have subscribed to. The user can enter numerous comma-separated keywords into the input box labelled Subject Tags at the bottom of the page when establishing a topic. Following the topic's publication, a list of comma-separated tags will appear above it in alphabetical order. Any topics that have the same topic tag will be offered after clicking any of these tag links.

Users can perform searches on individual boards, topics, or threads. Simply entering certain terms or phrases into the search input box will do (search bar).

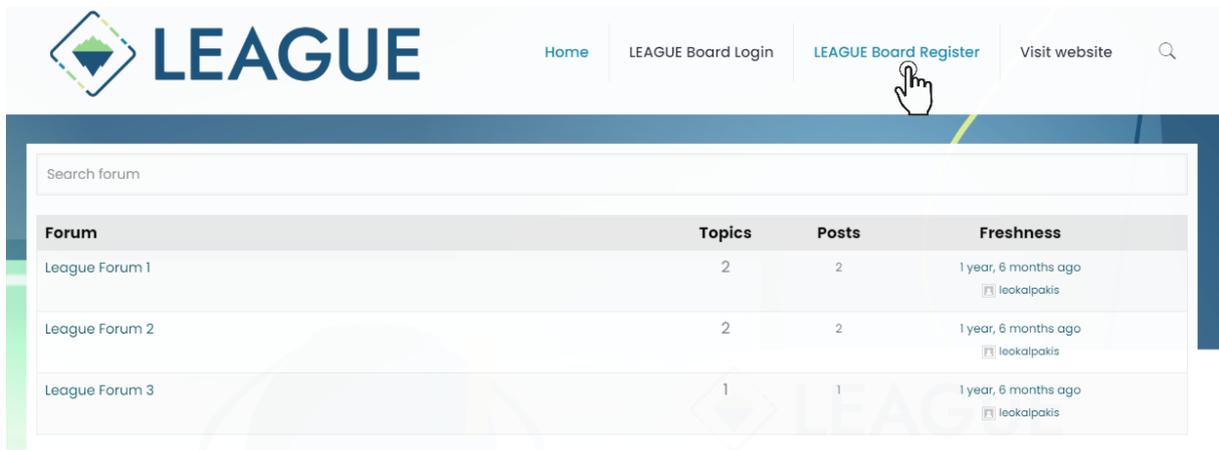
If a person answers to another user's reply, it will appear nested because reply threading enables nested replies layout to a topic.

When logged in, registered users can change their personal profile. They can modify their current email and password as well as add their full name, profile photo, and biographical information.

### **2.2.6 Documentation**

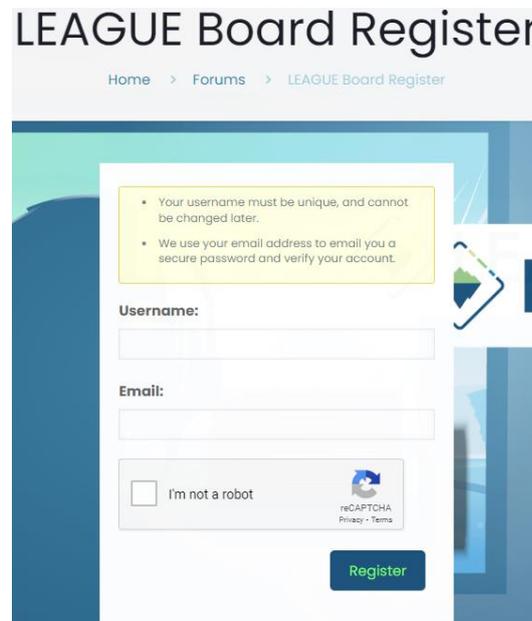
#### **Register**

**Step 1:** Users must click the "LEAGUE BOARD Register" button on the home page.



**Figure 3: LEAGUE board homepage**

**Step 2:** On screen, the registration form will appear. In order to receive a verification email with a URL that they must follow in order to set a safe password, users must enter a distinct user name and a valid email address.



**Figure 4: LEAGUE board register form**

## Login / Logout

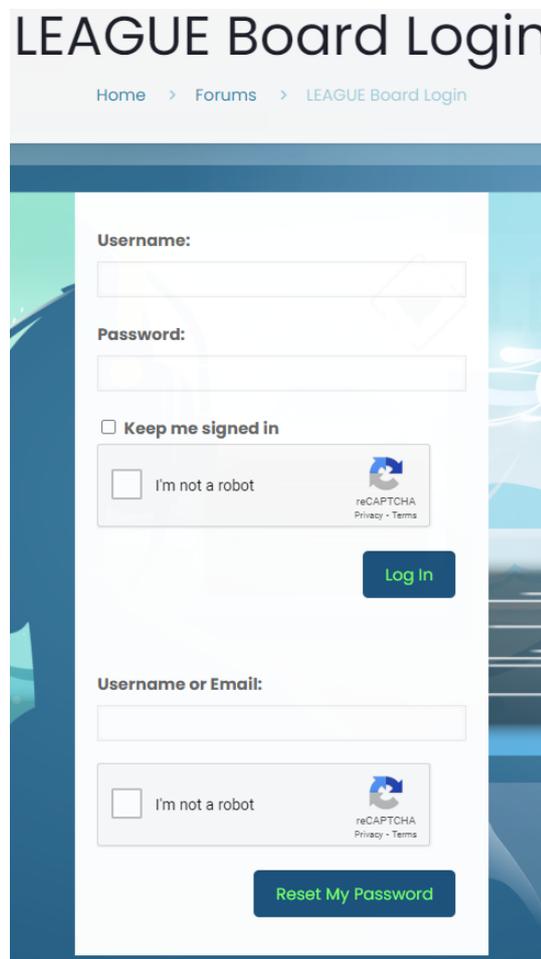
### User Login

**Step 1:** Users must click the "LEAGUE BOARD Login" button on the home page.



**Figure 5: LEAGUE board top menu "LEAGUE Board Login" button**

**Step 2:** Onscreen, the login form will appear. A popup asks users to enter their credentials. If the credentials are entered incorrectly, an error message is shown.



**Figure 6: LEAGUE board login form**

### User Logout

The button in the top right corner of the screen must be hovered over by users. Choose the "Log out" option from the menu that appears in the new pop-up window.

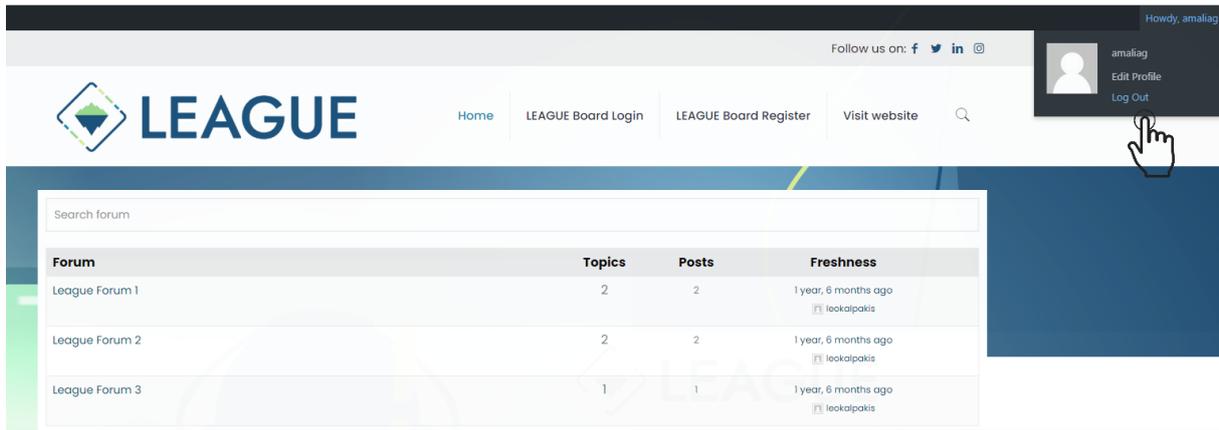


Figure 7: LEAGUE board "Log out" button

## Home Page

The Home page consists of two parts: The horizontal navigation menu (in white), and the content section of the page. At the content section of the page the user can see a structured table that displays the Forums titles - categories (1<sup>st</sup> column), the number of Topics of each Forum (2<sup>nd</sup> column), the number of Posts (3<sup>rd</sup> column) and the last person that modified or posted on each Forum Topic (4<sup>th</sup> column).

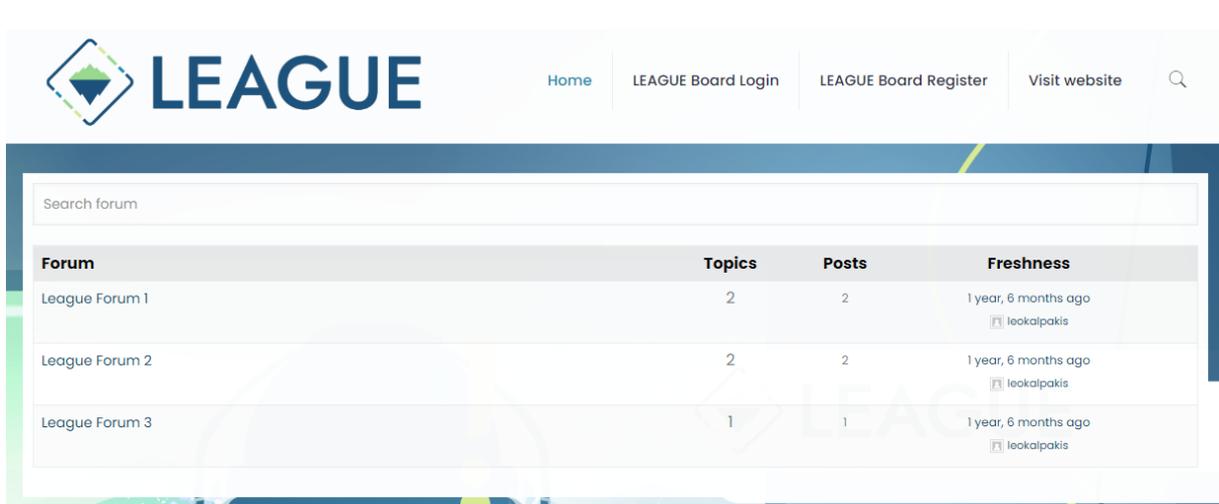


Figure 8: LEAGUE board home page content

## User Roles

The user roles are separated in the next three categories:

- **Unregistered User:** The user can view the forum categories and their open topics, but they are unable to edit or post.
- **Registered User – Subscriber:** The user can create new public subjects, view the public topics for each forum category, and post to any public topic.
- **Registered User – Keymaster:** The user has access to the forum categories, the public topics within those categories, the hidden topics (which are only visible to Keymasters Users), the ability to create new public topics and hidden topics, post to any public or hidden subject, and the ability to remove topics and messages.

## Registered User – Keymaster

### General

The user must first choose the forum category that best suits his or her needs in order to edit an existing subject, start a new one, publish a new post, or delete an existing one.

Users can access a new page that displays the secret forum (a forum that is only accessible by users with a Keymaster Role), the Public topics of the selected forum category, and a form that can be used to create a new Public Topic by choosing one of the available forum categories.

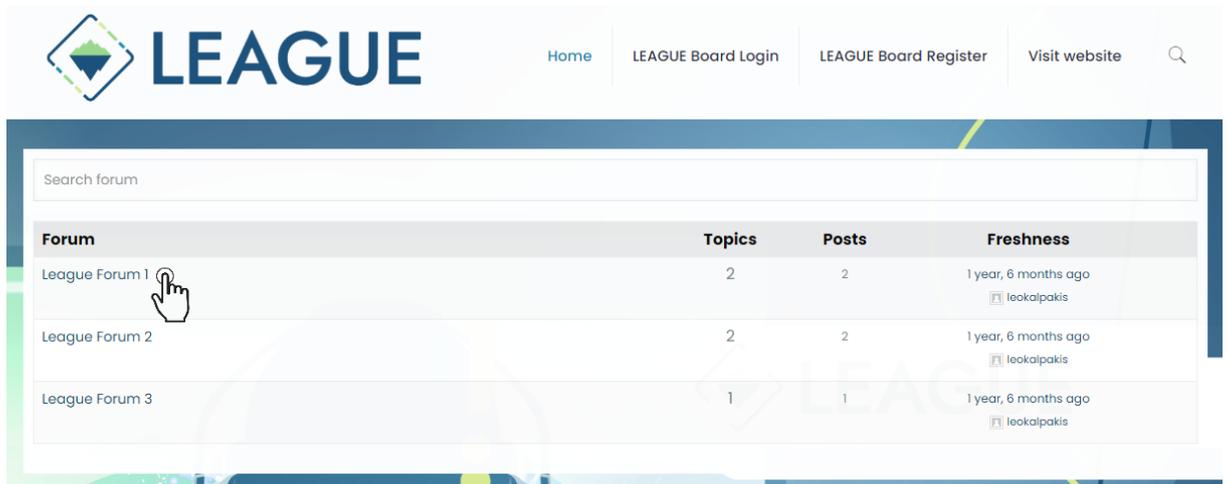


Figure 9: LEAGUE board forum categories

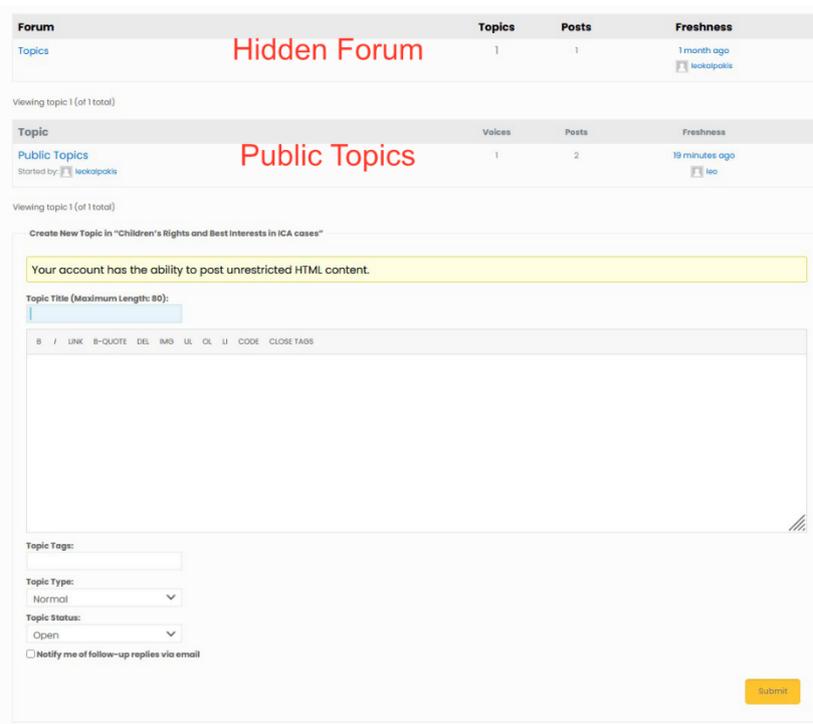


Figure 10: LEAGUE board forum category and public topic

### Create new Public Topic

Users must fill out the form title, add a few sentences describing the content of the new topic, and then click the "Submit" button in the right-bottom corner to create a new public topic.

Figure 11: LEAGUE board new public topic form

Figure 12: LEAGUE board new public topic form "Submit" button

The newly added topic will be shown in the Public Topics table.

Forum	Topics	Posts	Freshness
Topics	1	1	1 year, 6 months ago leokalpakis

Viewing 2 topics - 1 through 2 (of 2 total)

Topic	Voices	Posts	Freshness
This is a New Topic Started by: amaliag	1	2	1 week, 6 days ago amaliag
Public Topics Started by: leokalpakis	1	1	1 year, 6 months ago leokalpakis

Figure 13: LEAGUE board public topics

Users with the role of subscriber are no longer able to edit newly generated Topics after they have been created. The newly formed Topic can only be modified or deleted by users who have the Keymaster role.

### Delete a Topic

Users must choose the topic they want to delete from the topics table.

## D3.2 Internet Platform

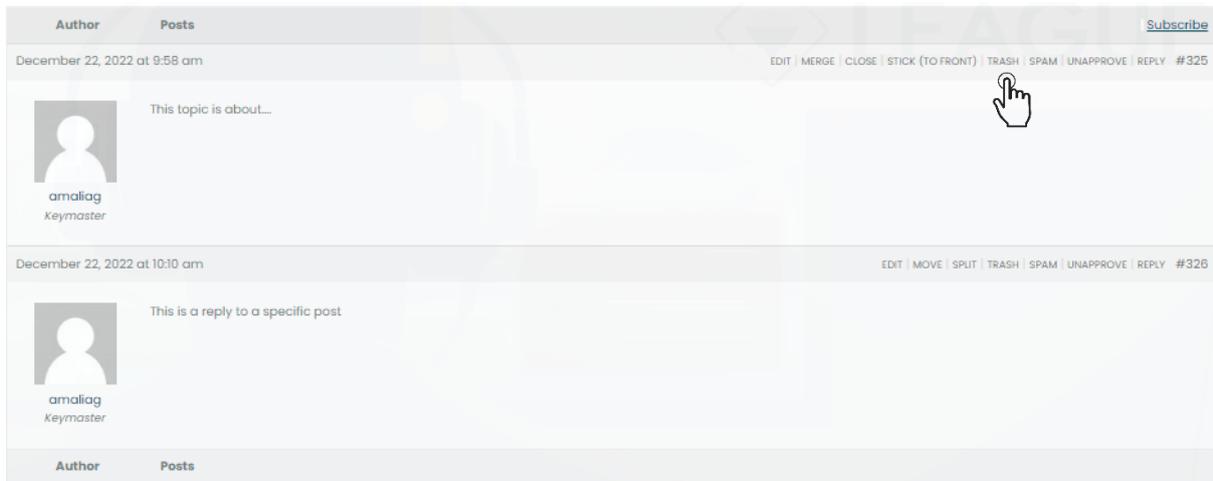
Forum	Topics	Posts	Freshness
Topics	1	1	1 year, 6 months ago leokalpakis

Viewing 2 topics - 1 through 2 (of 2 total)

Topic	Voices	Posts	Freshness
This is a New Topic Started by: amaliag	1	2	1 week, 6 days ago amaliag
Public Topics Started by: leokalpakis	1	1	1 year, 6 months ago leokalpakis

**Figure 14: LEAGUE board select topic to delete**

A horizontal menu will display on the new page. Selecting the "TRASH" button is required.



The screenshot shows a forum post interface. At the top, there is a header with 'Author' and 'Posts' columns, and a 'Subscribe' button on the right. Below the header, the post content is displayed. The first post is dated 'December 22, 2022 at 9:58 am' and has a horizontal menu with options: 'EDIT | MERGE | CLOSE | STICK (TO FRONT) | TRASH | SPAM | UNAPPROVE | REPLY | #325'. A hand cursor is pointing at the 'TRASH' button. The post content includes a profile picture of 'amaliag Keymaster' and the text 'This topic is about...'. The second post is dated 'December 22, 2022 at 10:10 am' and has a horizontal menu with options: 'EDIT | MOVE | SPLIT | TRASH | SPAM | UNAPPROVE | REPLY | #325'. The post content includes a profile picture of 'amaliag Keymaster' and the text 'This is a reply to a specific post'.

**Figure 15: LEAGUE board horizontal menu of topics "Trash" button**

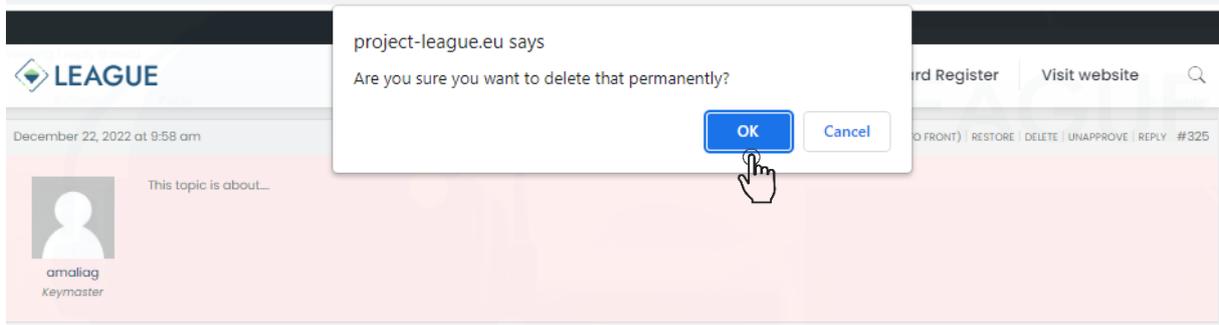
A horizontal menu will display on the new page. Users must select the "DELETE" button.



The screenshot shows a forum post interface. At the top, there is a header with 'Author' and 'Posts' columns, and a 'Subscribe' button on the right. Below the header, the post content is displayed. The first post is dated 'December 22, 2022 at 9:58 am' and has a horizontal menu with options: 'EDIT | MERGE | STICK (TO FRONT) | RESTORE | DELETE | UNAPPROVE | REPLY | #325'. A hand cursor is pointing at the 'DELETE' button. The post content includes a profile picture of 'amaliag Keymaster' and the text 'This topic is about...'. The second post is dated 'December 22, 2022 at 10:10 am' and has a horizontal menu with options: 'EDIT | MOVE | SPLIT | TRASH | SPAM | UNAPPROVE | REPLY | #325'. The post content includes a profile picture of 'amaliag Keymaster' and the text 'This is a reply to a specific post'.

**Figure 16: LEAGUE board horizontal menu of topics "Delete" button**

The pop-up box asks users to confirm that they really do want to delete the topic forever.



**Figure 17: LEAGUE board delete topic pop-up window**

### Submit a post

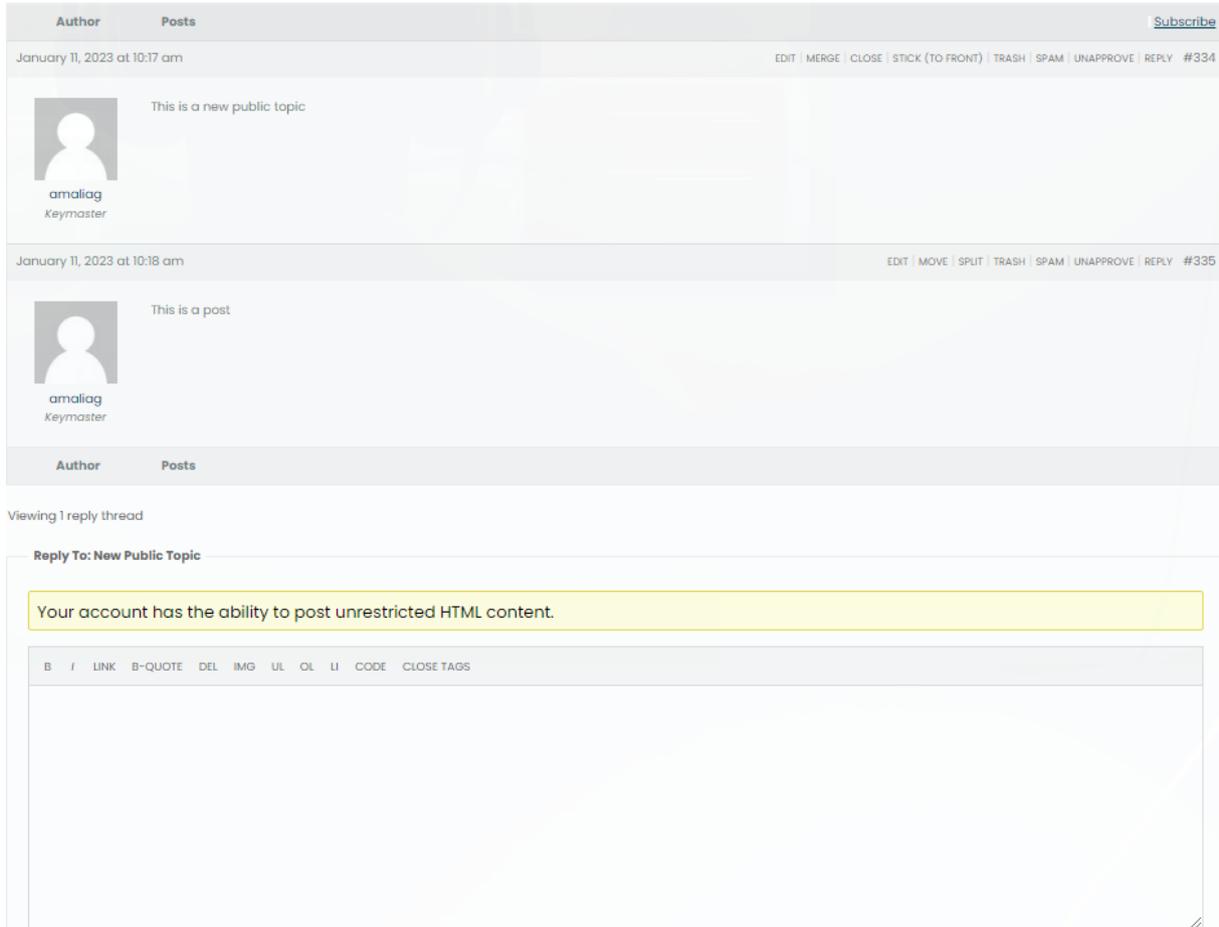
Users choose the topic they want to post to, from a table of available topics.

Topic	Voices	Posts	Freshness
New Public Topic Started by:  amaliag	1	1	6 seconds ago amaliag
Public Topics Started by:  leokalpakis	1	1	1 year, 6 months ago leokalpakis

**Figure 18: Table of public topics**

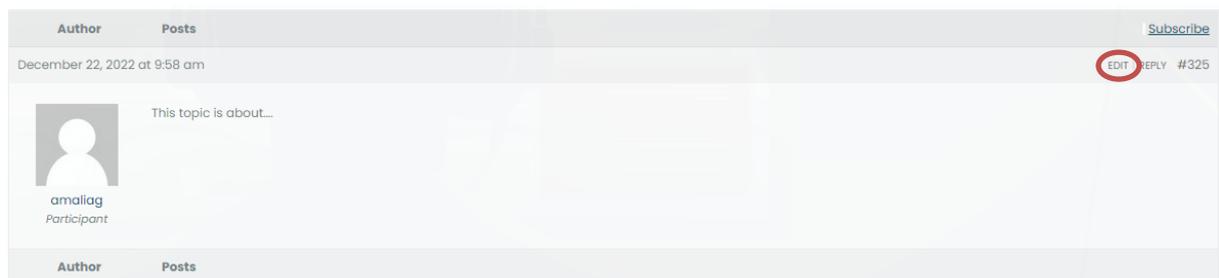
Users can view a list of all posts that have been published and are connected to the topic they have chosen on the new page.

## D3.2 Internet Platform



**Figure 19: Post list with submission form**

To submit a new post, users can use the form at the bottom of the page. The new post is added to the list whenever they click the submit button. Only the Amend button, which is displayed on the horizontal menu above each post the user has already published, can be used to edit a post after it has been submitted.



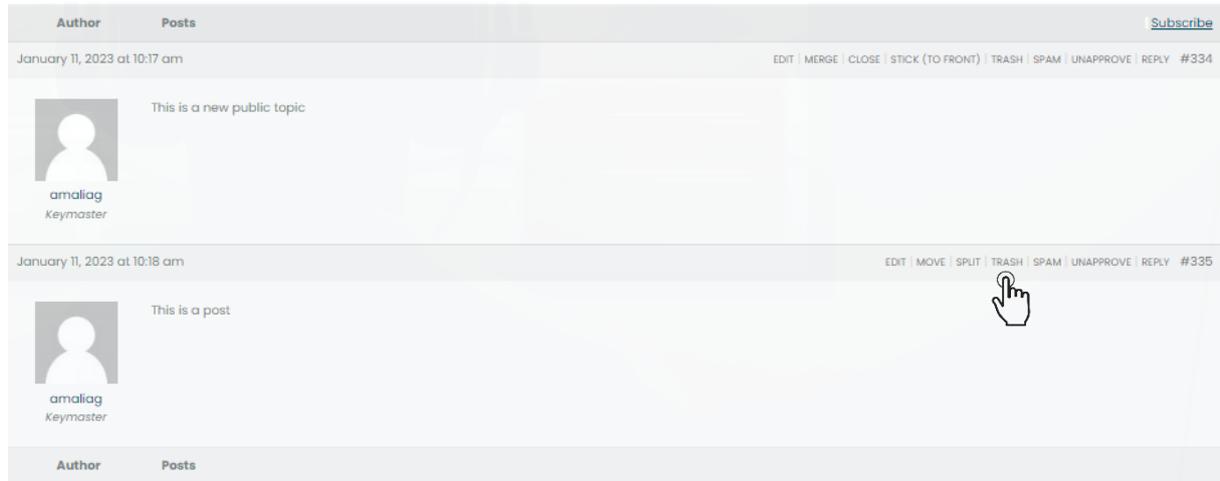
**Figure 20: Post list with “EDIT” button**

Individuals who have the Keymaster role can only delete submitted posts.

### **Delete a post**

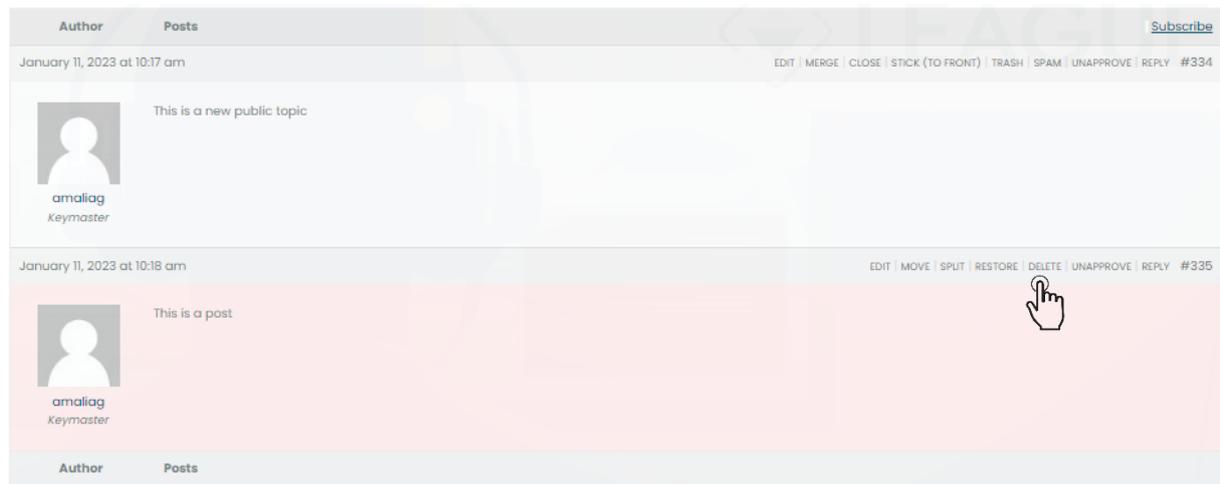
Users can choose the "TRASH" button from a horizontal menu on each post. In our hypothetical situation, the user will remove the second post from that list.

## D3.2 Internet Platform



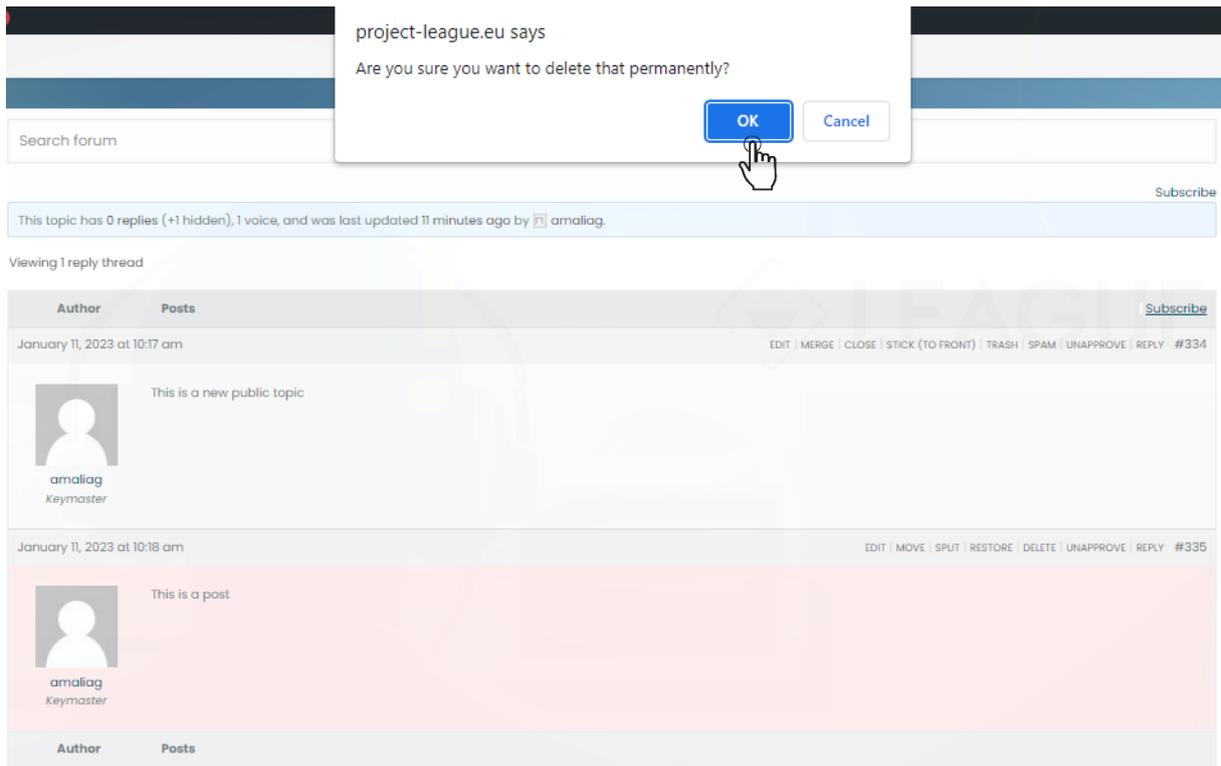
**Figure 21: Posts list**

The selected post's background will be red on the new page. Users must choose the “DELETE” button.



**Figure 22: Selected post to be deleted**

Users must express their intention to delete the post in the pop-up window permanently.



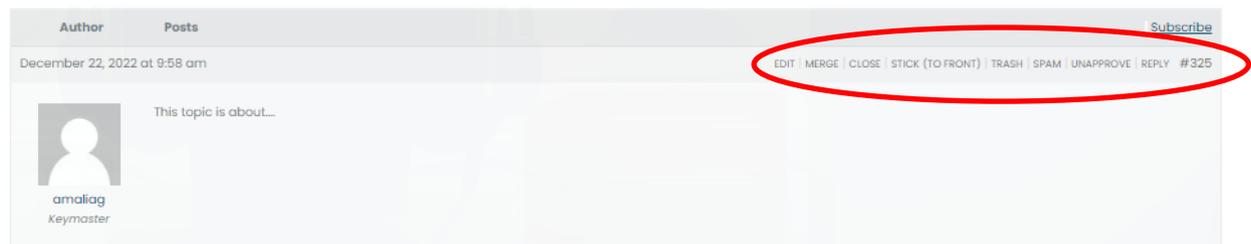
**Figure 23: Pop up window for permanent deletion**

In addition, users with the Keymaster role can merge Topics with other Topics and Posts, mark Topics and Posts as Spam to prevent them from being displayed on the front end, disapprove them in case they want to edit their content first and approve it later, and close Topics to prevent further Posts on the topic that has been marked as closed. Users will continue to have access to the Topic and its previously submitted posts. Users can also "stick" a topic to the top of the list of topics to make it stand out.

Topic	Voices	Posts	Freshness
New Public Topic Started by: <a href="#">amaliag</a>	1	1	19 minutes ago <a href="#">amaliag</a>
Public Topics Started by: <a href="#">leokalpakis</a>	1	1	1 year, 6 months ago <a href="#">leokalpakis</a>

**Figure 24: Topic list with a highlighted topic**

Users holding the role of Keymaster only have access to these features, which are located on the horizontal menu above each Topic or post.



**Figure 25: Keymaster horizontal menu**

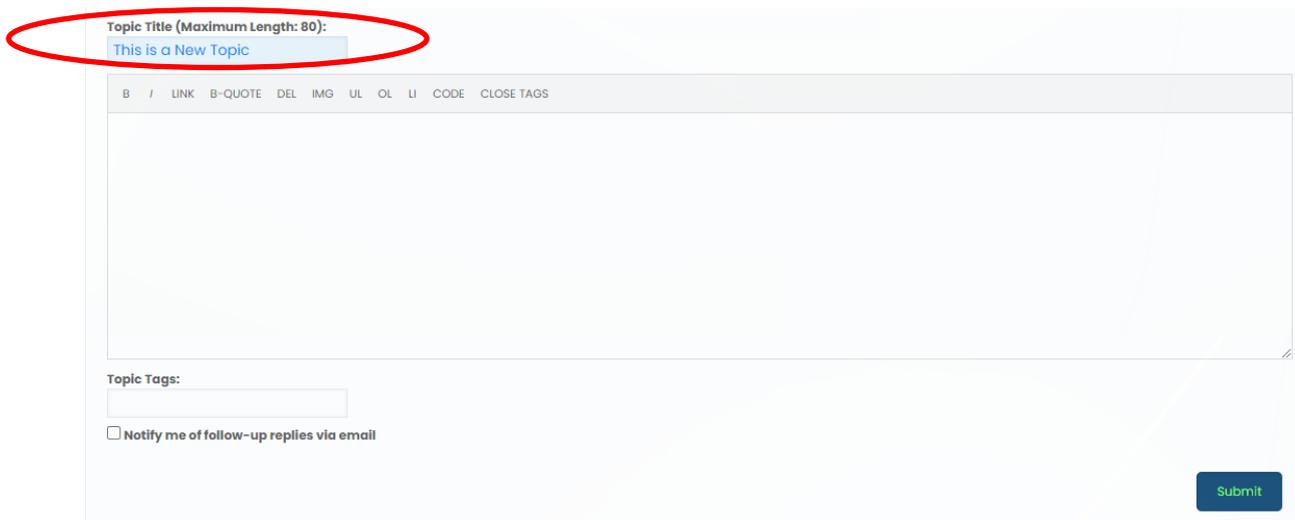
## Registered User – Subscriber

### General

Users must first choose the forum category that best suits them in order to start a new discussion or submit a new post. Users can access a new page that features the Public subjects of the chosen forum category and a form for adding a new Public Topic by choosing one of the Forum categories.

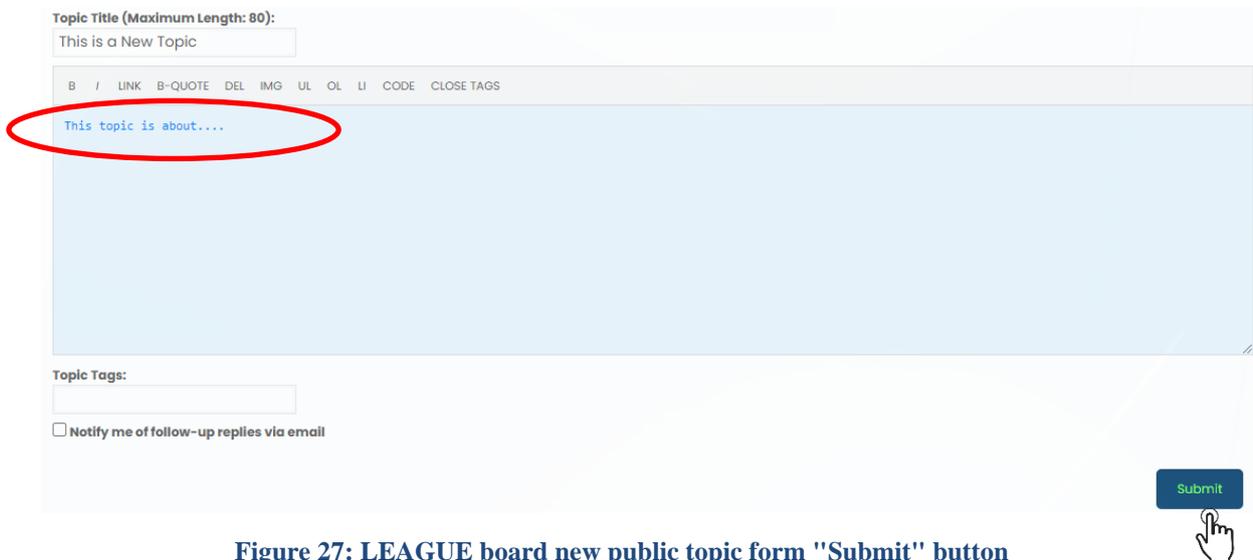
### Create new Public Topic

Users must fill out the form title, add a few sentences describing the content of the new topic, and then click the "Submit" button in the right-bottom corner to create a new public topic.



The screenshot shows a web form for creating a new public topic. At the top, there is a text input field labeled "Topic Title (Maximum Length: 80):" containing the text "This is a New Topic". This field is circled in red. Below the title field is a rich text editor toolbar with icons for bold, italic, link, quote, delete, image, list, code, and close tags. The main content area of the editor is empty. Below the editor is a "Topic Tags:" input field and a checkbox labeled "Notify me of follow-up replies via email". A blue "Submit" button is located in the bottom right corner.

Figure 26: LEAGUE board new public topic form



This screenshot is similar to Figure 26, but the main content area of the rich text editor is highlighted in light blue and contains the text "This topic is about....". This area is circled in red. The "Submit" button in the bottom right corner is also circled in red, and a hand cursor is pointing at it.

Figure 27: LEAGUE board new public topic form "Submit" button

The newly added topic will be shown in the Public Topics table.

Topic	Voices	Posts	Freshness
<b>This is a New Topic</b> Started by:  amaliag	1	1	9 seconds ago amaliag
<b>Public Topics</b> Started by:  leokalpakis	1	1	1 year, 6 months ago leokalpakis

Figure 28: List of topics

Users with the role of subscriber are no longer able to edit newly generated Topics after they have been created. The newly formed Topic can only be modified or deleted by users who have the Keymaster role.

### Submit a post

Users choose the topic they want to post to, from a table of available topics.

Topic	Voices	Posts	Freshness
<b>This is a New Topic</b> Started by:  amaliag	1	1	4 minutes ago amaliag
<b>Public Topics</b> Started by:  leokalpakis	1	1	1 year, 6 months ago leokalpakis

Figure 29: Table of topics

Users can view a list of all posts that have been published and are connected to the topic they have chosen on the new page.

Author	Posts
December 22, 2022 at 9:58 am	<a href="#">Subscribe</a>
EDIT   REPLY #325	
 amaliag Participant	This topic is about...

Viewing 0 reply threads

Reply To: This is a New Topic

B / LINK B-QUOTE DEL IMG UL OL LI CODE CLOSE TAGS

Tags:

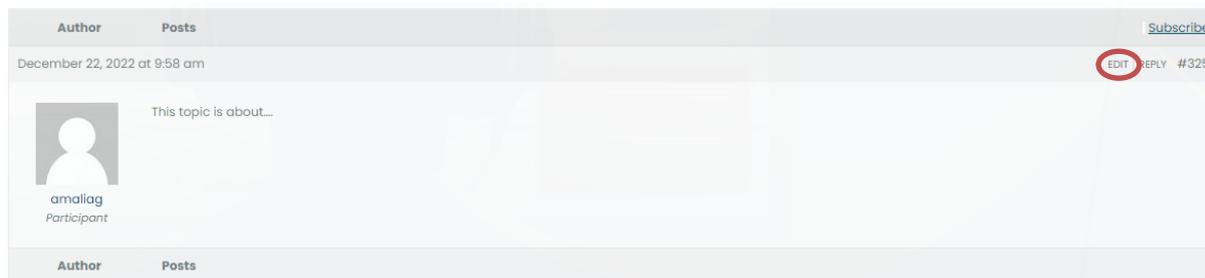
Notify me of follow-up replies via email

[Submit](#)

Figure 30: List of published posts with submission form

To submit a new post, users can use the form at the bottom of the page. The new post is added to the list whenever they click the submit button. Only the Amend button, which is displayed

on the horizontal menu above each post the user has already published, can be used to edit a post after it has been submitted.

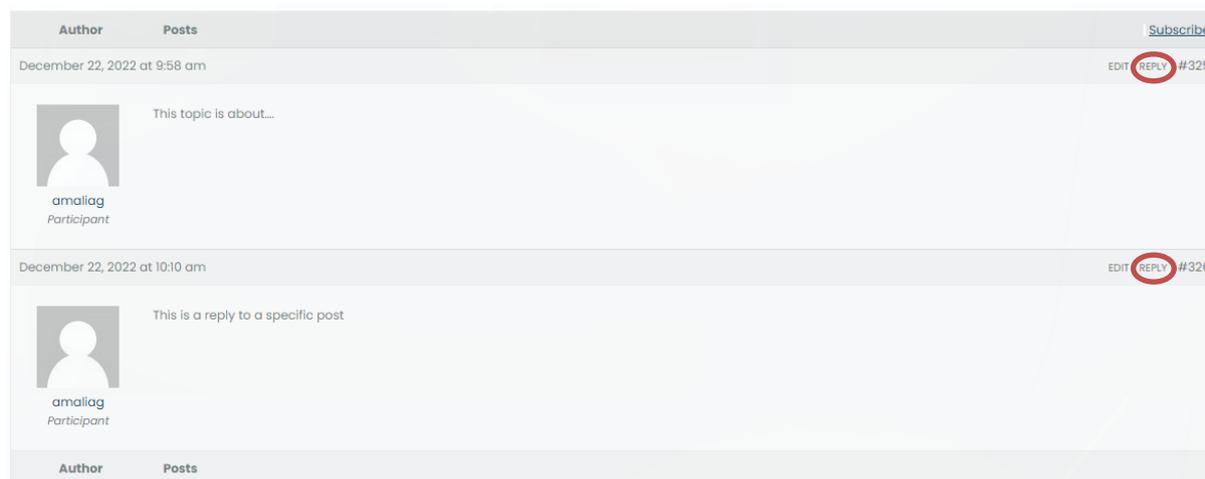


**Figure 31: Submitted posts with “EDIT” button**

Individuals who have the Keymaster role can only delete submitted posts.

### **Reply to a single post**

By selecting the REPLY button that is shown on the horizontal menu above each post, users can respond to a single post. They can then reply to a particular post using the form at the bottom of the page. Following the submission of the post reply, a new post is added to the list of posts, immediately following the post to which the user responded.



**Figure 32: Nested reply post**

## **2.3 Training Material**

With the purpose of increasing understanding among professionals, educators, and parents who work with and for children, particularly boys, on LEAGUE’s website in the Training Material sector, there are free available educational resources that were developed as part of the LEAGUE project. The resources are for anyone who needs to reinforce and enlarge their knowledge on the subject, while the training exercises and materials compiled in the module can be a useful source of inspiration.

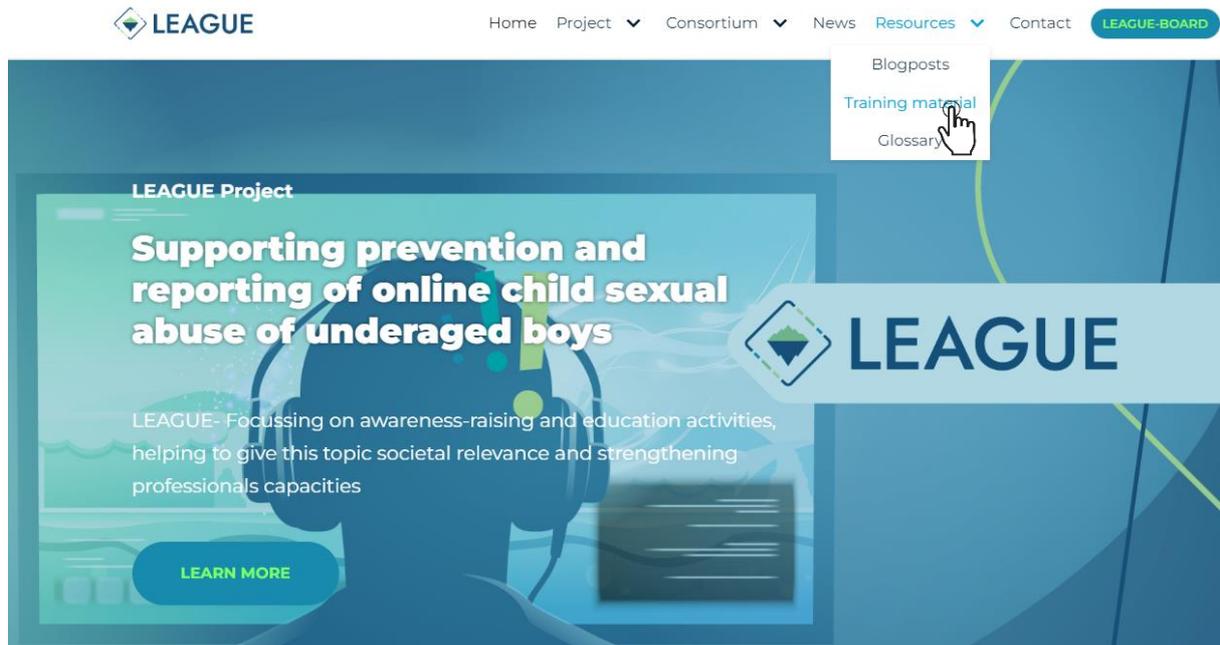


Figure 33: LEAGUE website menu "Training Material"

This training material is intended for psychologists, caregivers, social workers, law enforcers, and other pertinent participants in the international trainings (T2.2), as well as educators, school psychologists, and parents participating in the national trainings (T2.3). The document will also be made available to other pertinent parties who work with children in order to prevent and address children's participation in online sexual abuse and exploitation, including the reduction of dangers associated with the Internet.

These training materials have been created as a reference framework for the implementation of the international (T2.2) and national (T2.3) trainings that will be held throughout the project's lifespan for enhancing general competence and exchanging information and prevention strategies regarding online safety for kids, and boys in particular. In order to instruct participants on the subject, partner organisations will use the training materials and modify their content.

The training materials provide broad information regarding Online Child Sex Abuse (OCSA) and place special emphasis on OCSA-related processes for identification, protective measures, and support strategies. However, all individuals who need to strengthen and deepen their knowledge on the issue can get inspiration from the training activities and materials compiled in the module.

The training materials include four main sections; each of them offers a theoretical explanation of the material, some recommendations to encourage conversation, and hands-on exercises to help you think critically about the lessons you have learned.

The four main sections are:

- **General overview:** A discussion of the vocabulary and terminologies used in the field of child sexual abuse with an emphasis on OCSA and the impact of the COVID-19 epidemic on OCSA.

### D3.2 Internet Platform

- Identification: The primary risk factors for OSCA will be examined, along with the children who are most at risk and why, as well as the behavioural indicators that can be used to identify an OCSA victim.
- Prevention: In order to avoid abuse, it is important to take into account the primary OCSA preventive techniques as well as the concerns of children who may be at danger.
- Support mechanism: For the support of victims or potential victims of child sexual abuse and OCSA, in particular the reporting measures that must be performed to assist child victims of sexual abuse and mapping supportive programs and accessible possibilities.

Users and visitors can open and download a .pdf file with the training materials.

## Training material

These training materials have been created within the framework of the project "Limiting online sexual Exploitation and Abuse Gender based on Underaged boys by Educating experts" (LEAGUE) project. However, the training activities and resources collected in the module can be a relevant source of inspiration for all those who need to strengthen and broaden their knowledge on the topic.

### To whom are these training materials addressed at?

These training materials are addressed at psychologists, carers, social workers, law enforcement and other relevant actors that will be involved in the International Trainings (T2.2) and to teachers, school psychologists, parents that will take part in the National Trainings (T2.3).

Furthermore, the document will be made available to other relevant actors working with children to prevent and tackle the involvement of children into online sexual abuse and exploitation including the mitigation of Internet-related risks.

### How to use the training materials?

These training materials have been developed as a reference framework for the implementation of the International Trainings and National

The training materials present general information about Online Child Sex Abuse (OCSA) and focus on identification mechanisms, preventive measures and support strategies related to OCSA.

### What is the structure of the training materials?

The training materials include main sections:

- 1. General overview:** An introduction to the topic considering vocabularies and terminologies related to child sexual abuse with a focus on OCSA and the effects of COVID-19 pandemic on OCSA.
- 2. Identification:** The main factors that could cause or increase the risk of OSCA will be analysed considering which children are particularly at risk and why, and exploring behavioural signs that can help to spot an OCSA victim.
- 3. Prevention:** For the prevention of abuse by addressing the needs of children who might be at risk and considering the main preventive strategies for OCSA.
- 4. Support mechanism:** For the support of victims or potential victims of child sexual abuse and OCSA, in particular the reporting steps that need to be taken to help child victims of sexual abuse and mapping supportive programmes and available opportunities.

Each section includes a theoretical presentation of the content, some guidelines to foster discussion and practical activities to critically reflect on lessons learned (under the Annex section). The majority of the activities are based on materials produced from previous EU funded projects implemented on the topic (Children First project, STOP! Project, ISEX), while the EU CORDIS platform provided a consistent database for the research of relevant projects on the topic.

[DOWNLOAD TRAINING MATERIALS](#)



Figure 34: "Download Training Material" button

## 3 Technical Evaluation

Following the principles of the technical evaluation strategy, regular meetings were held and a number of test cases were run in order to validate and confirm the accomplishments of the initial version. With regard to the technical effort, the evaluation concentrated on covering as many Key Factors as possible.

### 3.1 Testing and Evaluation Methodology

Software development, regression testing, and in-system validation all used prototyping. In other words, it was important to examine how well each element engaged in designing and implementing the system interacted with one another and how efficiently the total scale of activities operated.

It is important to mention the extensive testing efforts that we committed to through teleconferences with other partners in order to resolve both intra-communication issues with other components and internal functionality anomalies when drawing conclusions about the technical evaluation.

Following an SCRUM testing methodology [1] [2], we used monthly plenary meetings to update everyone on how each component of the project was progressing toward achieving deadlines.

This testing approach, which was created especially for the integration of the initial iteration of the LEAGUE internet platform, is described in the paragraphs that follow. Using the specifications as a guide, we created our testing framework. The major goal of integration testing was to gradually combine and test the interface between the important components before expanding this combination to test all of the internet platform's integrated components as they would work together to produce a full flow that would define a Use Case scenario.

This method highlights the importance of teamwork and the quick feedback that iterative usability evaluation may offer, even though its efficiency often depends more on the participation of end users, or usability specialists.

To sum up, monthly meetings served as internet platform evaluations during which teams presented new features to end-users and subject experts, who then offered feedback that could affect the discussion at the following meeting. Technical overview and stakeholder feedback led to modifications in the offered functionality as well as the revision or addition of items to the product backlog. Following the sessions, a list of issues, requests for changes, and new tasks was compiled to feed the Issue Management tool that is discussed in the following part.

### 3.2 Issue Management

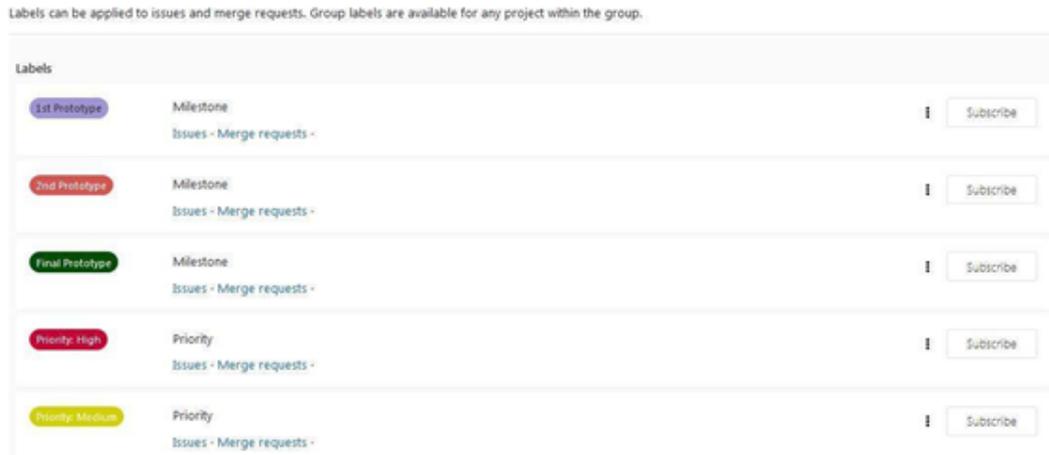
Issue trackers are without a doubt important consideration when assessing the progress of the software development process. It offers a internet platform to enable tasks like issue reporting, tracking, and resolution during software development and maintenance. An issue tracker acts as a communication hub and channel between the developers and the QA (Quality Assurance) [3] [4] team in the social and collaborative process of problem tracking (such as a bug report or a feature enhancement request).

The consortium partners used the embedded issues management system of GitLab [5] to record issues, set milestones, and distribute the technical work required to fix the issues discovered during the development and technical tests of the LEAGUE portal.

The GitLab issue tracker does the following tasks:

- A secure and trustworthy way for the team to raise concerns and issues.
- Keep track of and give each issue's responsibility to a specific person or group.
- Easily analyse and rank issues.
- For future reference and project learning, note the issue resolution.
- Track the overall state and health of the project.

As shown in the next Figure, specific labels were made and utilised to map and prioritise the internet platform component issues in order to better organise the issues.



**Figure 35: Issues Management for LEAGUE components**

Lastly, with regard to the monthly meetings, particular Milestones were employed in order to establish the time schedule for addressing the stated issues. All technical partners were able to participate in the management of issues, labels, and milestones because it was done at the repository level and modifications could be made quickly as necessary. It was simple to get an overview of the issues with the entire framework thanks to a component that could be aggregated at the root level of the LEAGUE project in GitLab.

### 3.2 Evaluation of Key Factors

We decided to give certain quality metrics of the modules that are thought to be important implementation criteria for the evaluation of the initial edition of the LEAGUE portal's quality.

The integration and techniques employed have various scalability aspects, which favourably impact the system's overall performance and output. Given the present installation and deployment, the deployed system can currently support a larger load while still comfortably handling the projected load of the LEAGUE pilots. When the system load substantially increases, there are additional scalability factors that can be used to affect performance.

- Number of visitors of the LEAGUE portal
- Number of logins at the LEAGUE Board

There were no appreciable differences in the system's overall performance or the responses of any of the individual components when the total load was increased to the maximum levels while the LEAGUE portal was running and users were simultaneously accessing all of the various components. The LEAGUE portal was functioning flawlessly and successfully accomplishing its intended purposes.

## 4 Conclusions

D3.2 reports on the progress that has been achieved since the beginning of the project in the context of T3.2. Each component's current level of development, the integration strategy, and the infrastructure that was used to build the internet platform are all presented and summarized.

In particular, in this deliverable the developments that have been made in the direction of establishing the LEAGUE internet platform are described in detail. Furthermore, it contains a documentation with instructions and guidelines for users of the LEAGUE Board and a technical evaluation that took place through performance benchmarking experiments.

In future work, a component including the Chatbot will be integrated into the platform and more experiments will be carried out for further evaluation.

## 5 References

### 5.1 Literature

- [1] Mike Cohn, "Succeeding with Agile: Software Development Using Scrum", Addison-Wesley, 2010
- [2] Schwaber, Ken; Sutherland, Jeff (November 2017), "The Scrum Guide: The Definitive Guide to Scrum: The Rules of the Game", retrieved May 13, 2020
- [3] Abran, A., Moore, J. W., Bourque, P., Dupuis, R., & Tripp, L. (2004). Software engineering body of knowledge. IEEE Computer Society, Angela Burgess, 25.
- [4] Kelemen, Z. D., Kusters, R., & Trienekens, J. (2012). Identifying criteria for multimodel software process improvement solutions–based on a review of current problems and initiatives. *Journal of software: Evolution and Process*, 24(8), 895-909.
- [5] GitLab Inc. GitLab DevOps tool, version 13.10.2, Available at <https://about.gitlab.com/>

### 5.2 Websites

<https://project-league.eu/>

<https://project-league.eu/league-board/>