VIRT²UE

Training
the Trainer

D6.1 Pilot version of the e-learning platform is online

WP6 Online platform and evaluation

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D6.1 Pilot version of the e-learning platform is online

Project details	
Project full name	Virtue based ethics and Integrity of Research: Train-the-Trainer program for Upholding principles and practices of the European Code of Conduct for Research Integrity
Project acronym:	VIRT²UE
Start date of the project:	01.06.2018
Duration:	36 months
Project number:	787580

Deliverables details	
Work Package	WP6 Online platform and evaluation
Description of deliverable	D6.1 Pilot version of the e-learning platform is online
Work package leader	VUMC
Responsible for the deliverable	Marc van Hoof
Submission date	30.11.2018
List of contriubutors	Marc van Hoof, Lars Lambriks

Overview

Introduction and Summary

WP6 is responsible for overall objective 6: **To develop the online training platform and user interface, which will be instrumental in evaluation of trainers' and researchers' needs and project sustainability**.

The main strategy in WP6 is to use existing open source software technologies with a proven track record for implementation on the platform. The Massive Open Online Courses (MOOC) software and Question and Answer (Q&A) software is successfully used by numerous distinguished academic or commercial organizations. This ensures low cost implementation, allows for a focus on the specific ERI adaptation and severely reduces the risk of problems with software development (e.g. develop-mental delays, additional costs).

The EnTIRE platform will host the online e-learning platform, allowing VIRT^{2}UE to focus investments on user experience software developments. All educational ERI materials will be open access and thus freely available. This allows stakeholders (e.g. academia and industry) to embed the materials in their curriculum, which increases the value and dependency on the platform. The Q&A part of the platform allows for a strong involvement of the ERI community for evaluation purposes. Questions about ERI content which are frequently posed or have a large importance within the community will be used to adapt the platform. A continuous evaluation and iterative development feedback loop will be created. Important topics will also be used as input for material development (WP4). For example by covering them on the dedicated YouTube channel. This ensures that there is a strong and direct link between the community's needs, actual use and the platform's content and identity. This identity will be strengthened by branding of the platform from which its authority should be recognizable.

Overview of objectives and deliverables

Objectives

Objective 1 Deploy an online open source and open access blended learning platform.

Objective 2 Develop an intuitive and engaging interface for the online platform.

Objective 3 Evaluate the community's use and needs for the training program.

Objective 4 Establish a continuous evaluation and iterative development feedback loop with trainers and researchers.

Deliverables

D6.1 The pilot version of the e-learning platform is online, M6.

D6.2 Report on findings of the pilot evaluation, M12.

D6.3 Version 2.0 of the e-learning platform is available, M24.

D6.4 Plan for future platform development, M36.

Deploy an online open source and open access blended learning platform

Overview

The Embassy of Good Science platform, The Embassy, can be divided into several elements.

- Interpretation and synopsis of cases, laws, guidelines and educational materials online today.
- Question & Answer functionality.
- Search and indexing functionality.
- Educational tools.

The functionalities is based upon existing open source packages. In EnTIRE the basic functionality has been created together with initial content for The Embassy. In VIRT^{2}UE, the focus lies on improving the user interface and optimizing the content for the platform to meet the user needs. In addition, specific question & answer functionality and online education possibilities will be added.

Development is split in conceptual and technical aspects together with the creation of content. Once online, community development will also be considered.

Platform development

1. Progress in conceptual development

Development focused on a conceptual framework which separates the platform from other online platforms today. An elaborate stakeholders' consultation was conducted in EnTIRE for designing an attractive platform. Momkai has evaluated the input from stakeholders and the goals of VIRT^{2}UE to distill the following elements which are essential for The Embassy

- *Platform –* **interactive & inspiring, user-friendly & modern**

- *Resources –* **a mix of content, the ability to participate & easily share**

- *Community –* **a safe-place to discuss content, ask questions & connect to peers**

- *Education –* **a course, community and materials that help to educate others**

- *Recognition –* **for the good science, its supporters & platform participants**

The process of the conceptual development, which includes branding, is available online at the intended URL of the future platform (design.embassy.science) as depicted in Figure 1.

Figure 1. A screenshot of the current platform online (design.embassy.science). Retrieved at 28/11/2018.

2. Progress in technical development

Primary platform – current status

The primary platform consists of Semantic Mediawiki 1.31 open source software. This has been published online at https://sourceforge.net/projects/the-embassy-of-good-science/ and was a milestone for the EnTIRE consortium. A screenshot is provided in Figure 2. It also forms the bases of the staging platform displayed in Figure 5.
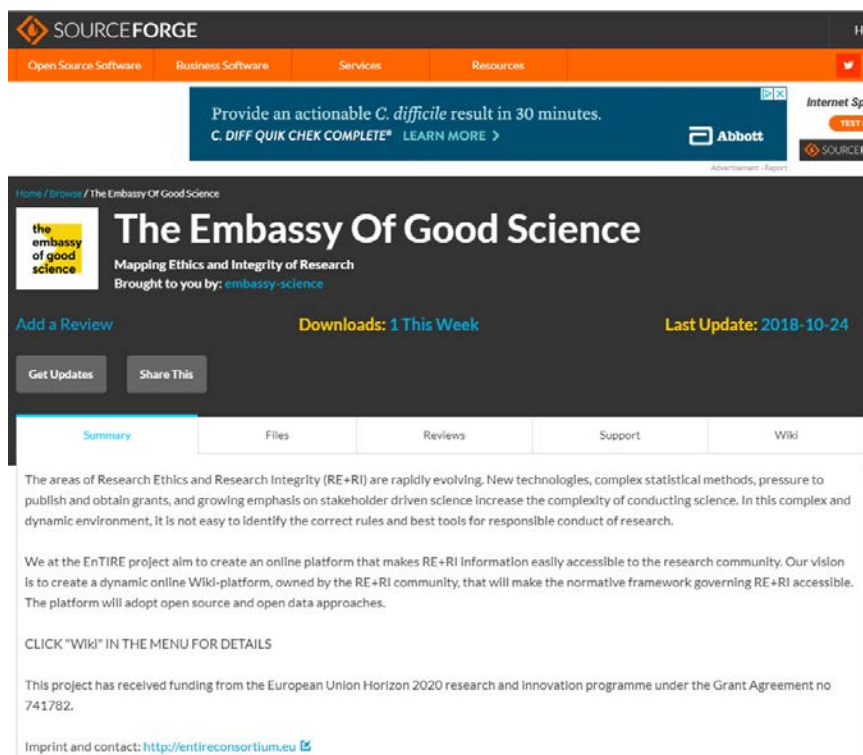
Figure 2. A screenshot of the base of the platform which is available for download online. Retrieved at 28/11/2018.

Question and Answer functionality – current status

In VIRT^{2}UE, question and answer functionality will be added to The Embassy. Currently, a pilot version is running online (invites only) at stakeholders.entireconsortium.eu as depicted in Figure 3. Current features include elements of gamifications (with a reward system), the ability to upvote answers within the community and the ability to label an answer 'as the solution'.

Figure 3. A screenshot of the current question and answer functionality. Retrieved at 28/11/2018.

Open Online courses via Open Edx

A pilot for the Open EDX MOOC is available online via virt2uepilot.eu. Here courses can be created (studio.virt2uepilot.eu) by the consortium to test the functionality. When created and made available to, participation is possible via virt2uepilot.eu. However, at the moment, the Open EdX platform proves to be technically challenging and the user interface seems not flexible enough for customization. These aspects will be further evaluated. Depending on the outcomes, this functionality will either be continued or outsourced. In such a case it can be externally linked to the platform via the Identification document as outlined in "Identification document central to the blended e-learning platform". Both elements of the Open EDX MOOC are displayed in Figure 4.
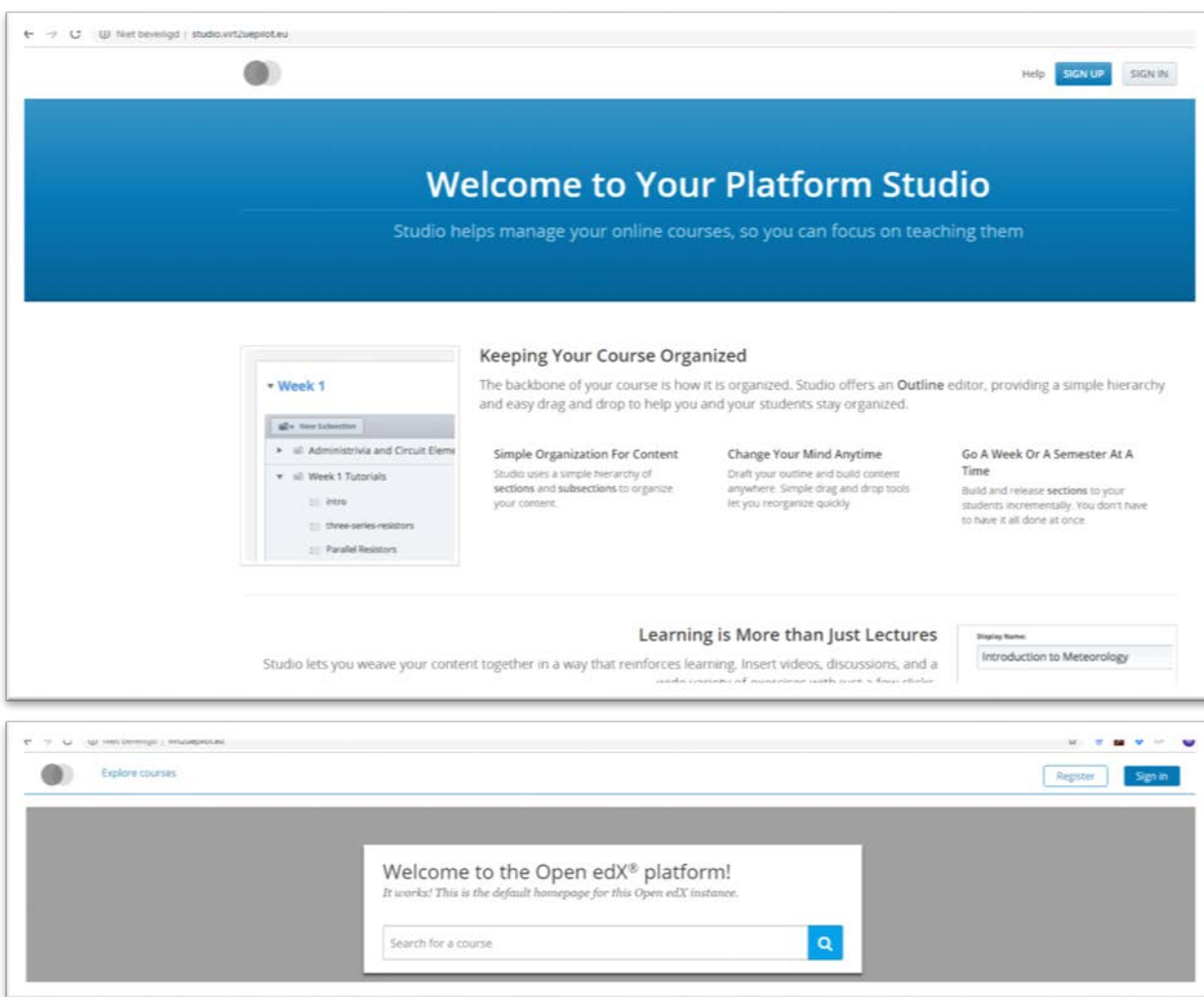

Figure 4. A screenshot of the pilot MOOC studio (top) where courses can be created and the platform where users can enroll in such a course (bottom). Retrieved at 28/11/2018.

3. Progress in content development

The first content on the staging platform of The Embassy

The current staging platform holds 7 educational training materials and is available online, in a closed environment at https://www3.semantic-apps.net/entire-staging/Main_Page as shown in Figure 5.

Currently, the content is mainly based on tags and short descriptions. To extent the usefulness of the platform and support the user in the community to create similar content, a more structured approach was necessary to describe content which is available today. This led to the development of the 'Identification document'.
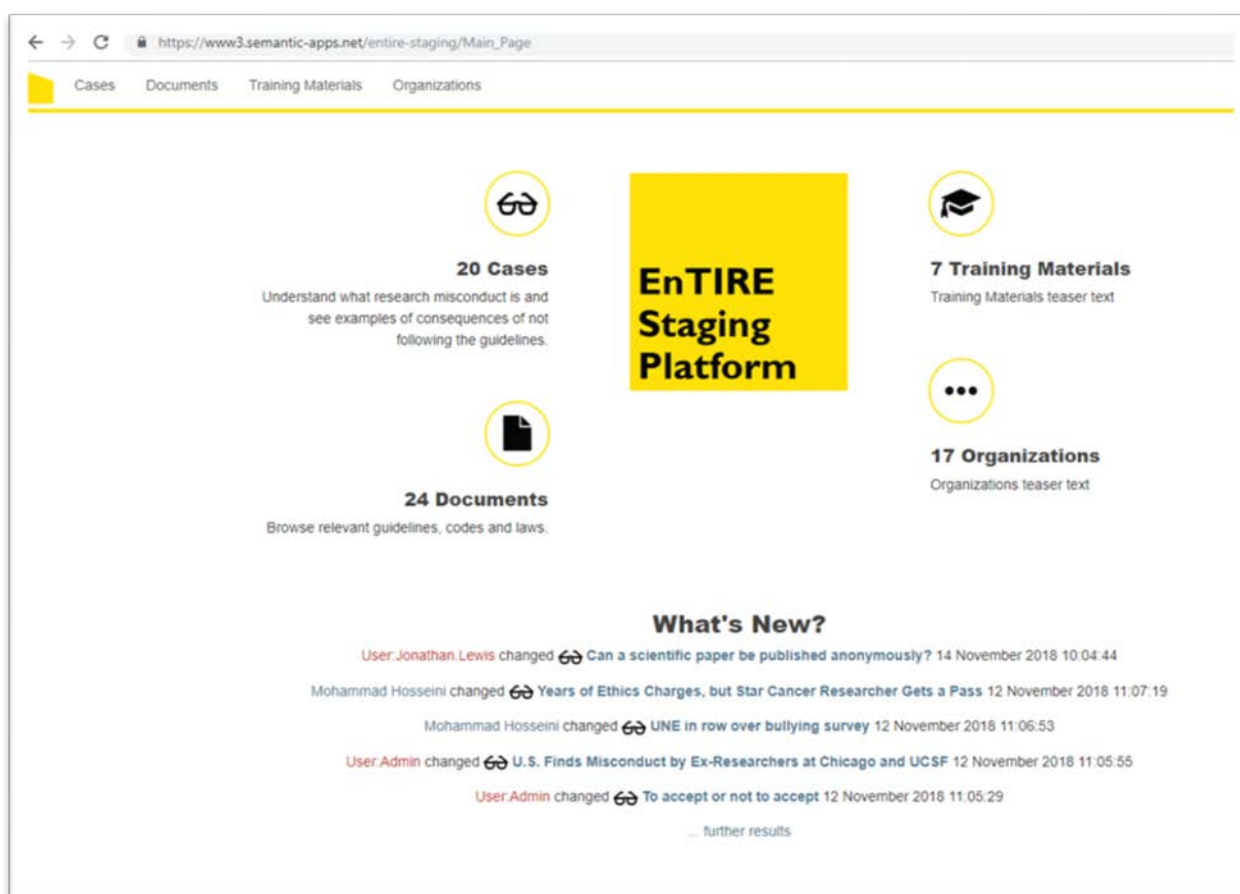

Figure 5. A screenshot of an alpha version of The Embassy. Retrieved at 28/11/2018.

Identification document central to the blended e-learning platform

The so called 'Identification document' (working title) will be used the put content in the context of the user, so that he or she can find high quality materials online. Such content would allow the community to add a review, to consider the merits of certain content or summarize the key learning points in a quick way. The current identification document is displayed in Figure 3. It contains a title which is phrased in an instructional way ('How to..'). These documents can be created by the community. Credit is given to the initiator (in this case "Lars Lambriks"). A short overview of the content of the course follows and a user rating by the community tells the user how the course has been valued. This also allows the user to quickly screen for high quality courses. Other elements include 'Practice', which aims to list what the user can do after following the course in a concrete way. 'In detail' allows for a more nuanced view on the course, which can also include a more elaborate summary of its contents.

Figure 6. An fictious example of the structure of the identification document as applied to content which is available online.

At the moment there are a number of open online courses for research integrity. A user looking for educational materials ('user journey') is illustrated in Figure 7 in which The Embassy might mediate a need. In this example, the user ends up with 'Responsible Innovation: Ethics, Safety and Technology' MOOC which is hosted by EdX and was created by TU delft. In the upcoming months, the platform and content will be further adapted to these kinds of user journeys.
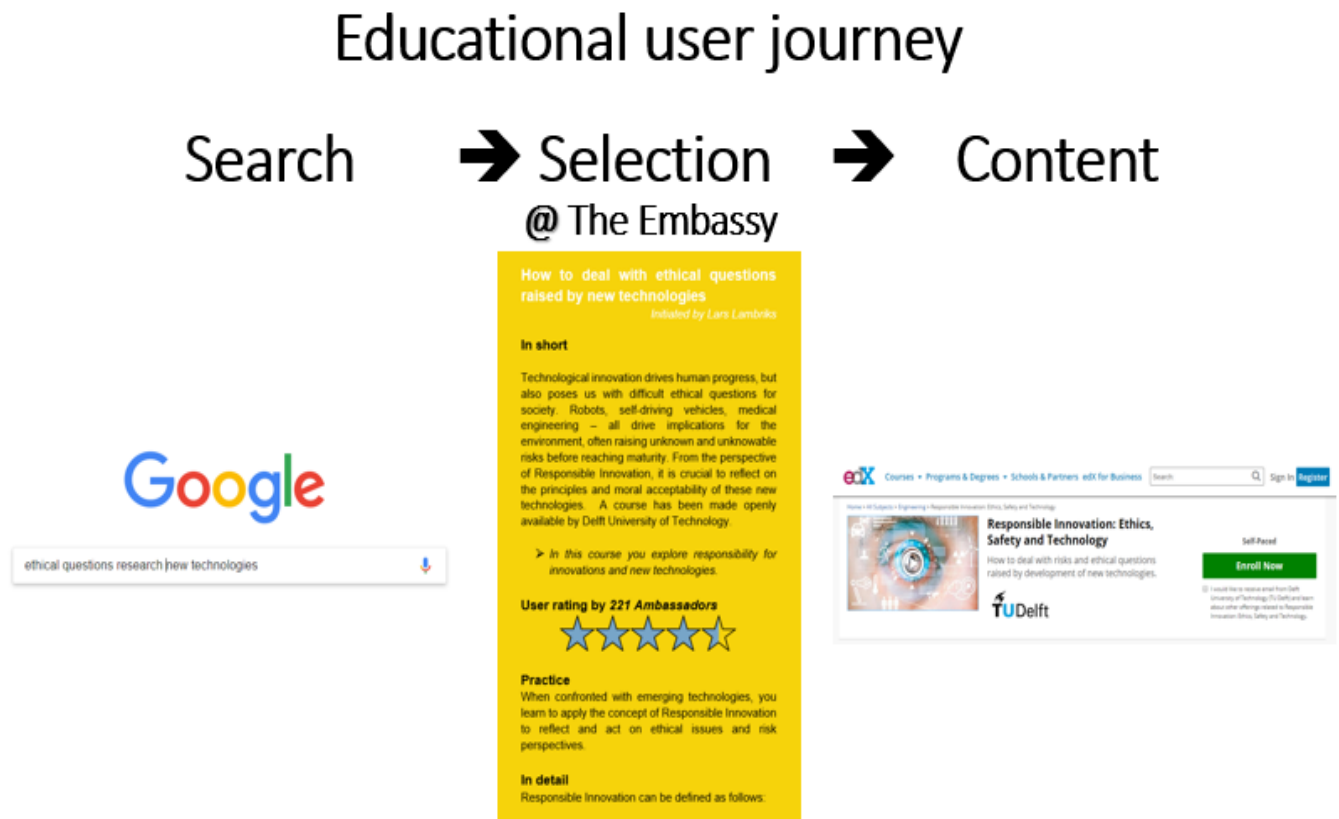

Figure 7. A conceptual example of a possible user journey. As the user searches for a common question using their regular search engine (in this example "Google" (Alphabet©) for "ethical questions research new technologies", they come across an identification document on The Embassy called "How to deal with ethical questions raised by new technologies" where an applicable type of content available online, an Open EDX course by TUdelft is described and reviewed by the community.