Green DigiFashTech Manager

Platform



Green DigiFashTech Manager E-Learning Platform

Hosting diverse educational content on sustainable fashion and digital innovation

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Swedish Council for Higher Education. Neither the European Union nor the granting authority can be held responsible for them.

Executive Summary

We have developed a comprehensive, full-featured e-learning platform within DigiFashHub, also referred to as the Hub, providing an accessible space for participants to engage in educational content related to the intersection of digital technologies and sustainability within the textile and fashion industry.

Our Green Digital Fashion Manager course and online modules are the first learning opportunities available on the platform. These educational resources have been translated into local languages, ensuring accessibility through specialised tools. The platform offers free registration for interested trainees, granting certificates upon successful completion of courses, modules, quizzes, and assessments.

Table of Contents

Executive Summary **1**
Table of Contents **2**
1. Introduction **3**
2. Platform Development **4**
3. Structure and Content **5**
4. The Learner Experience **6**
4.1. Discovering Content 6
4.2. Content Landing Page 6
4.3. Course or Module Player 6
4.4. Lesson Content 7
4.5. Knowledge Checks, Exercises, Quizzes 8
4.6. Completion and Certification 8
4.7. Learning Dashboard 8
4.8. Help and Feedback 8
5. Learning Management **9**
5.1. Course and Module Creation 9
5.2. Building Lessons 9
5.3. AI Usage for Content Creation 10
5.4. Translation 10
5.5. Duplication 10
5.6. Import 11
5.7. Export 11
5.8. Course or Module Archival and Deletion 11
5.9. Course Certificates 11
5.10. Monitoring and Evaluation 12
5.11. Help and Feedback 12
6. Conclusion **13**

1. Introduction

This report describes the Green DigiFashTech Manager E-Learning Platform deliverable and its features and functionality. Also referred to as the platform or the Learning section, it is integrated into DigiFashHub, which serves as the project's Citizens Digital Science Hub. The full content and methodology behind the Hub is documented in the deliverable report D4.1 Citizens Digital Science Hub. This report, therefore, covers only the specific features of the Learning part of the Hub.

The Learning section of DigiFashHub hosts courses, modules, and educational content on sustainability, circularity, and digital innovation in the fashion and textile industry. Learners can browse a searchable catalogue of courses and modules, enrol, complete lessons and exercises, test what they've learned, and earn a certificate. Authors are able to build, translate, review, and publish their courses and modules themselves and track learner progress through their content.

As this section is part of the Hub, learners are able to complement their learning with our library of guides, reports, and other relevant content. They can also read about practical applications of the learning through case studies, profiles, and showcases from the industry.

2. Platform Development

Before starting any development, we first considered whether to use an existing learning management system (LMS). We first looked at commercial platforms, such as Thinkific or Teachable, which have been used in projects similar to the Green DigiFashTech Manager project. However, neither of these offer a free plan, which means that maintaining any course content after project end would require a budget.

We also looked at open source tools like Moodle, but the platform exists within the Hub and therefore, has specific needs that such tools do not fulfil. Learners would need to be able to register and log in in one place no matter which part of the Hub they are accessing. The Learning section needs to look like it belongs in the Hub with the same visual identity and graphic language. We also need to fulfil the needs of both learners and authors AND the overarching project or organisational needs concerning the content and visuals.

For all of these reasons, we developed the e-learning platform as just another section of DigiFashHub, existing alongside its Topics, Library, Inspiration, and Network sections.

We initially based functionality on the needs identified in the project application, then we adapted this further to both educational requirements and best practices. We also audited existing platforms and modeled some features and functionality on them to ensure our platform was full-featured and user friendly.

3. Structure and Content

Most of the content is structured around learning units:

- **Courses** are learning pathways that contain several modules.
- **Modules** are independent units generally covering one topic or area. They contain lessons. Modules can be taken standalone as a part of a course.
- **Lessons** cover one specific aspect of a wider topic or area.

Each course or module can be associated with a project and/or organisation, which enables them to use the visual identity created for that specific project or organisation.

The Learning catalogue contains a listing of all courses and modules with search functionality and filters for language and duration. Once enough content exists, categories and tags will be added to further organise the content and make it easier to find.

We also aim to add other educational content, such as handbooks and tutorials.

4. The Learner Experience

4.1. Discovering Content

From the homepage, learners click on Learning in the navigation to access the learning catalogue, which lists all visible courses and modules. Published but hidden content can only be accessed via its URL. Learners can filter for language and duration, and they may search the title or overview for specific words or phrases. Course and module cards contain the title, associated project if any, the number of modules or lessons, and approximate duration.

Learners can filter by language, and the same course or module can exist in several languages. The Hub currently supports a multitude of languages depending on what is needed by the author or project.

Anyone can access the catalogue of courses and modules, but only registered users can enrol. Enrolment is required to keep track of the learner's progress and to issue any certificates.

4.2. Content Landing Page

Clicking on a course or module card opens the course or module landing page. Here, learners are presented with an overview of the content and what you will learn and the content of the course or modules. Courses have an expandable list of all modules with their lessons and duration. Modules have a list of all lessons and duration. Related courses or modules are shown in the sidebar.

Learners can click the "Start Learning" button to enrol in the course. As they are already registered and there is no payment processing, the learner is then directly taken to the course or module player.

There may also be a button to access a preview lesson if the author has made any previews available.

4.3. Course or Module Player

The player is designed for focus: a dedicated space to progress through a course or a module, lesson by lesson.

Preview lessons allow the learner to view the content of that specific lesson only.

Actual enrolment allows the learner to jump around and take modules or lessons in any order. Progress for each lesson is recorded, and the learner must explicitly mark a lesson complete. The completion of all lessons is required to complete a module, and the completion of all modules and their lessons is required to complete a course.

4.4. Lesson Content

There are currently six types of lessons: text, video, interactive (slide-based), block (scrolling slide-based), reflection (exercise), and quiz.

- A **Text** lesson may contain text, images, links and is presented as a page of content.
- A **Video** lesson contains an embedded video, link to the video on Youtube or Vimeo if applicable, and option text content as one page.
- An **Interactive** lesson is a self-contained piece of content within its own frame containing slides, similar to a presentation. Learners can navigate through the slides in order or go to any slide within the lesson.
- A **Block** lesson also contains slides; however, instead of a frame, these are vertically stacked on page. Learners can progress through the slides in order or navigate to a specific slide using the sidebar.
- A **Reflection** lesson comprises a scenario or situation with open questions for the learner to answer. Optional guidance hints and model answers are provided. The learner can record their responses. Once completed, they can return as many times as they want and update their responses. The responses are private and cannot be accessed by course or module authors.
- A **Quiz** lesson contains true/false or multiple choice questions. Once taken, the learner's score and breakdown of their answers versus correct answers are shown. A learner may retake a quiz as many times as they wish.

Block and Interactive lessons contain slides. There are currently 36 slide types, most of which contain some kind of interactive element.

4.5. Knowledge Checks, Exercises, Quizzes

Knowledge and learning material integration can be checked in various ways. Within interactive and block lessons, slide-based checks (multiple choice, true/false, matching, drag and drop, sequencing) give immediate feedback.

Scenario slides are similar to Reflection lessons, except the learner cannot record their responses.

Assessments using Quiz lessons can be given at any time within the module; although they are usually saved until the end. If the quiz must be passed to advance, then the learner may attempt to retake the quiz if they score lower than the passing grade. Quiz questions and their answers are shuffled in each attempt, so that no learner receives the same quiz twice.

4.6. Completion and Certification

Once the learner completes the course or module, they reach a completion page with a feedback survey if there is one and a link to review the material. Course completion pages will also have the learner's certificate of completion if it is ready or a notice that it is forthcoming.

In order to receive a certificate, every module, lesson, and quiz must be completed. Certificates can be downloaded as PDF and checked through a public verification link.

4.7. Learning Dashboard

Once enrolled in a unit, learners have a learning dashboard accessible within their user hub. This dashboard shows all in-progress and completed courses and modules as well as any completed certificates. The learner can continue any units from this page or return to any course or module completion page to review the material.

4.8. Help and Feedback

The learner can access a help link within the course or module player at any time to report a problem or give feedback. They can suggest a feature, say what they like or dislike, or report a bug.

5. Learning Management

5.1. Course and Module Creation

Authoring rights are given to users by a DigiFashHub admin user. Authors own all content they create and can also list a secondary author who shares full rights.

Authors build their content directly within the platform. They can create a course or module, add and reorder modules and lessons, publish their content, and open enrolment independently and with no technical knowledge.

They may also choose to keep their course or module hidden so that learners must have the exact URL to access the material.

While in development, courses and modules stay in draft status and are only accessible to the content authors and selected reviewers.

Authors may also publish their course or module without immediately opening enrolment if they so choose.

5.2. Building Lessons

Inside a module, authors can add, duplicate, modify, delete, and reorder lessons and choose a type for each one.

Each type has specific editors to create the content. Text lessons use a rich text editor with a connected media library for images and documents. Video lessons contain an upload or embed link plus the same rich text editor for any textual content. Reflection lessons have both an editor and a question builder. Quiz lessons have a question editor for managing each question and its response options.

Interactive and Block lessons contain slides. The 36 current slide types are grouped into: structure (openings, objectives, key takeaways), text and layout, visual and interactive elements (flip cards, tabs, timelines, image hotspots, galleries, and others), knowledge checks, callouts and scenarios, and utilities. Authors use a variety of slide types in their lessons, alternating between presenting an idea, letting learners explore it, and checking understanding.

Authors can add, duplicate, modify, delete, and reorder all slides within the slide editor. They can also preview each slide and edit it in place or in a dedicated form.

5.3. AI Usage for Content Creation

While we have not integrated AI into the platform itself, we have worked with some AI models to engineer prompts for converting an author's previously existing textual content into slides for an interactive or block lesson. Authors can paste in their lesson content and get a prompt containing all the required instructions and references the AI needs to convert the content into ready-to-import slides. Once imported, authors can verify and edit any slide as normal.

5.4. Translation

Authors can create their content in any supported language. Missing languages will be added upon request. For those authors wishing to manage the translation process through the Hub, we have a built-in translation workflow: authors export the text of a module, has it translated, and imports the translation into a new draft module with identical structure. A translation review screen shows both the original text beside the translation in rows so that each one can be reviewed and approved.

We also have a glossary feature with frequently-appearing terms in each language so that they always use the same translation. We also have a list of protected terms in English that are never translated. Each glossary can be updated as necessary.

5.5. Duplication

All courses and modules can be duplicated; however, this only duplicates the details, overview, and some settings. Any modules or lessons must be manually added to the new unit.

All lessons can be duplicated. Text lessons keep all content, Video lessons keep video URL and duration, Interactive and Block lessons keep all slides, Reflection lessons keep the scenario or context text only, and Quiz lessons only keep their title and settings. All Reflection and Quiz questions must be created anew.

Within the lessons, slides can also be duplicated. They retain all the content from the original version.

5.6. Import

Courses can be imported only with their details, overview, and settings. Modules can be imported with all their lesson content intact. Reflection and quiz lesson questions can be imported in CSV format.

Only specific file types and formats can be imported into the platform.

5.7. Export

Export serves two purposes: authors who would like to export their content and for ease of content translation through our workflow. Course details can be exported, but their modules must be exported separately. Modules and their lessons can be exported together. Reflection and quiz lesson questions can be exported in CSV format.

Like any content management system or LMS, any export files are in specific formats and can only be imported back into the platform.

We are refining the process for both import and export and available file types.

5.8. Course or Module Archival and Deletion

Courses and modules can only be deleted if no learner history exists. Any content with learner history can only be unpublished so that the learner retains any progress or certificates.

5.9. Course Certificates

Upon completion of a course, learners may receive a certificate if it has been created by the author. Certificates can be issued automatically or manually. Automatic certificates are issued directly upon course completion provided all modules, lessons, and quizzes have been completed and passed. Authors or admins can also manually issue a certificate if they have selected that option.

The platform offers two ready-made certificate designs with DigiFashHub branding or the project or organisation may use their own visual identity and design.

5.10. Monitoring and Evaluation

Authors can create feedback surveys that will be presented to the learner upon completion. Each course and module also has its own statistics regarding enrolments, progress, quiz performance, and learner information. Most statistics can be exported as CSV files.

The platform admin also has a dashboard for monitoring learners, enrolments, progress, and quiz results across all courses and modules.

5.11. Help and Feedback

Projects and authors are onboarded onto the platform and instructed in how to create their content. Supplementary authoring guides are forthcoming.

Authors can click the contact button on any page to report a problem or give feedback. They can suggest a feature, say what they like or dislike, or report a bug.

6. Conclusion

The e-learning platform aims to offer an engaging and user-friendly experience for both learners and content creators. Built within the DigiFashHub, learners are able to access relevant content to complement their learning. Authors have a multitude of features to create, structure, showcase, and improve their courses and modules.

We are currently onboarding other projects and incorporating their learning materials. We are also planning outreach activities to get more projects and organisations and their content onto the platform.

DigiFashHub with its integrated learning platform is in active development and will continue to see new and improved features based on the evolving needs of learners, authors, projects, and other stakeholders.





Cover by: cgtrader

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Swedish Council for Higher Education. Neither the European Union nor the granting authority can be held responsible for them.

This document is licensed under a Creative Commons Attribution 4.0 International licence (CC BY 4.0): you are free to share and adapt it for any purpose, including commercially, provided you give appropriate credit to the Green DigiFashTech Manager project. The EU emblem and any project, partner, or third-party logos are not covered by this licence.