

Research Document

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Introduction

This document is a summary of the research made during the Graduation Internship at Drieam. There is one main question/goal “How might we provide more tools to students to manage their evidence more easily?” that gives rise to the other three research questions (with their sub questions) guiding the internship. Each of the research questions gets a chapter and their sub questions are subchapters on this document. It is not a report but serves as part of the Graduation assignment deliverables. There are more parts of the internship that naturally required a little research, however, they did not have big impact on the final outcome thus were excluded from this report.

# Characteristics of a working portfolio software

In order to better understand the assignment, it is important to know what the portfolio software is and what features make it a useful tool for students and teachers alike. To better define the characteristics of a working portfolio software the student performed several LIBRARY and FIELD research methods.

## What functionalities other e-Portfolio products have built?

To answer this question a *Competitor Analysis* was performed. Some of the main competitors were already listed on company’s internal pages. The student made use of that to start the analysis but also needed to add or update some of the data. This led to updating the internal pages with the findings, thus benefiting the student and the company. The [***Competitor Analysis***](Competitor%20analysis.docx) lists main competitors and the core features of their solutions, it is a separate document. By comparing the competitor products with Portflow student could identify some *Best* *Good and Bad Practices*.

The figure above summarizes core features of the competitors as being well or not well received by users. Most of the products were inaccessible for student due to being paid and/or part of the LMS, thus various online reviews and internal company *Document Analysis* came in handy. Student received access to some of the requirement and feedback from Drieam’s existing clients, which helped to better identify the Dream’s approach. It became clear that the company does not rush to deliver what client asks but tries to understand what is needed and why, to be able to serve best the institutions and their students’ needs. Knowing why a feature is needed can help identify the best way to offer it.

Regarding the *Good and Bad Practices*, some of the good practices are already implemented one way or the other in Portflow. The Filtering and Rubric Scales are an ongoing process, to which the student will have an input.

How is the aggregated data managed by similar portfolio solutions?

Data aggregation is the process of collecting large amounts of information and organizing it into a more consumable and comprehensive medium. In the context of the assignment, it is the Evidence section of the portfolio where student can manage all their study evidence. It is used to summarize information and should offer tools to manage it.

To gather inspiration on how best to design the Evidence dashboard the student reviewed existing Portfolio products as well as any similar file management tools and applications. In other words, an *Available product analysis* was carried out to get a better understanding of core aggregated data management features such as filtering, sorting, easy overview and clear interface. These are the features that are lacking in the current Evidence Section and the student will design and implement some of them. For this reason, a [***Design Document***](../2.%20Design/Design%20Document.docx) has been created where the student gathered insights and comparisons of other similar products. In addition, the student talked to colleagues - experts about the potential solution. *The experts interview* insights proved to be very useful too.

The *Available Product Analysis* and *Expert Interv*iews gave the following insights:

* File map can be used to show where the file is within the structure,
* Option to view by list, icons or info to add customization,
* Option to sort the contents by (size, name, date) within any view,
* Filtering by date, name, collection, type needs to be available via search field or buttons,
* Very convenient to have a preview section for a faster file management,
* Hovering over the file should display its information or details could be shown in a designated area within the Evidence section,
* A simple table can be improved to offer more functionality and overview,
* A dashboard can offer useful insights and offer more features,
* Highlighting search and filter options is familiar and inviting to use the section,
* Clear filter button is a good reminder to the user that there are applied filters.

These are just some of the core insights that were also discussed with the UX designers and Product Owner within Drieam. Their feedback proved to be invaluable too.

# The key needs of the target audience in the context of Portfolio Evidence page

The target audience of Portflow is students and educators, however the Evidence section is only for the use of the student owning the portfolio. To better answer this question the student gathered information via the FIELD, WORKSHOP and SHOWROOM research methods.

## What are the existing client requirements for Portflow Evidence management?

The company keeps track of the requirement received from clients at the different stages of collaboration, for example, initial expectations as well as later insights and feedback. Therefore, the student received access to these files and did a *Document analysis* of such notes to see how the Portflow has grown from a basic assignment submission section to an eportfolio with feedback requests, goals, templates and notifications.

Next to that the student had an opportunity to talk to peers and colleagues at Fontys university to receive insights directly from students and teachers that have just started using the Portflow in their semester. These insights were later shared and discussed with the development team and the product owner.

Lastly, the company already keeps track of user requirements for the Portflow product, and the student *Explored user requirements*.

All this has led to creating a separate document within the internship documentation called [***Requirements and Design process***](../2.%20Design/Requirements%20and%20Designing.docx)where the student lists out the core requirements of the evidence section. Green part represents features that are already implemented, the red is for those that still need to be developed. This document also holds all the potential addition features to be implemented as well as the design/sketching instructions to create various versions of the solution.

## How could the user experience of Portflow Evidence section be improved?

Using the list of requirements and potential features the student created [*Sketches*](../2.%20Design/Sketches) that later were turned into [*Wireframes*](../2.%20Design/Wireframes). There were 7 versions made in iterations. First versions explored different approaches to the solution while others refined the previous versions. Each iteration experts were involved to give feedback and guide the student. The inspiration was gathered by *Reviewing Existing Designs.* The wireframes were improved with each *Peer Review*, where student pitched the idea and the experts provided [feedback](../5.%20Manage/Feedback) (separate folder in Manage Section). Thus, with each iteration the design was refined until the student and the stakeholders were satisfied.

The process could be explained with a double diamond model. The student did two iterations over it. The image below illustrates it. More details can be found in the “[***Sketches***](../2.%20Design/Sketches)” folder of the portfolio, the [***Design Document***](../2.%20Design/Design%20Document.docx), the pitch presentation ([***Evidence Section Improvements.pptx***](../2.%20Design/Evidence%20Section%20improvements.pptx)***)*** and the [***Project Report***](../4.%20Advice/Internship%20report%20draft.docx).

Chart, line chart

Description automatically generated

Figure 1. Double Diamond model of Design thinking representing iterations of improving the Evidence Section

Once the version that fitted best was created and agreed the student *Prioritized the Requirements* and began creating an epic with issues to systemically work on implementation. The [Refinement](../3.%20Realization/Refinement%20notes.docx) process was completed with the help of the mentors. This way, the following course of action was reviewed and agreed by both parties.

# The best practices to technically implement the design

LIBRARY, FIELD

## What other frameworks could serve the solution?

<Literature Study>

<Task analysis>

## How to quickly fetch the aggregated data?

<Literature Study>

TBD…

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