



Technical Report

## Project management of an online Change Laboratory using Notion

Fiona Redmond <sup>1,2</sup>

<sup>1</sup> Department of Computing, South East Technological University, Carlow, Ireland;  
[fiona.redmond@setu.ie](mailto:fiona.redmond@setu.ie)

<sup>2</sup> Department of Educational Research, Lancaster University, Lancaster, United Kingdom

**Abstract:** In this resource I present a tool called Notion which I used to project manage an online Change Laboratory (CL) project that lasted 4 months and where participants were from two organisations, a university computing department and a secondary school. The key aims behind what I was trying to accomplish with Notion was to keep all CL resources together in one location and to allow people to access those resources throughout the CL process. In subsequent sections of this document, I give a brief overview of this Change Laboratory, my needs when choosing a platform to manage this project, an overview of Notion, followed by practical examples of how I used it. I conclude with a link for readers to access a demonstration site.

**Keywords:** Online Change Laboratory; Project Management.

**Editor:** Brett Bligh

**Citation:** Bureau de Change Laboratory, volume 1, article 1

Received: 26/10/2022

Revised: 03/11/2022

Accepted: 05/11/2022

Online: 16/01/2023

© The Author. Distributed under a Creative Commons Attribution 4.0 International licence



<https://creativecommons.org/licenses/by/4.0/>

Cover image: Badly Disguised Bligh

### 1. Introduction

This Change Laboratory project, undertaken as part of my PhD work, involved supporting partners to co-design an outreach initiative to attract female students into Higher Education Computer Science. Using this formative-interventionist approach, I wanted to build a partnership between a university computing department and a secondary school and explore how the experiences and insights of a diverse group of participants from the partner institutes could be leveraged to design an outreach intervention appropriate to the problems identified locally. I



conducted six Change Laboratory sessions online with 15 participants who included faculty, students and management from the university computing department and teachers from the secondary school. My aim with this research project was to trace and describe the design process of the outreach initiative and to provide important insights into any tensions that emerged during its design. I also wanted to know how the participants perceived their newly designed outreach initiative as meeting the needs analysed by the stakeholders involved. This approach is different to existing initiatives across the globe which according to the literature, are run by educational institutions, industry or voluntary organisations and are imposed top-down or come about as an idea by a small homogeneous group such as university faculty. Furthermore, where initiatives are seen as interesting, they are often copied between settings in ways that fail to replicate the perceived success that was achieved in the original location.

## 2. Project requirements

Prior to the first session of this online Change Laboratory, my focus was on identifying the right set of technologies that would enable me to effectively host and manage my project in an online space, without confusing participants by using multiple tools. It was my opinion that such an online venue would require a platform that had the functionality for real-time collaboration and provided the ability to create, organise and share content, track tasks, and allow for workshop scheduling and team management. In short, I needed a tool where I could keep all CL resources in one location and allow participants to access those resources throughout the project. In my quest to find a tool that met my needs, I began with searching the web for *project management* and *online collaboration* style tools and testing the functionality provided by multiple solutions that I found. Testing these involved evaluating each solutions' support for a variety of file formats such as text, statistics, documents, images, audio and video, and if they would enable people to carry out tasks such as creating lists, sketching, filling in activity system diagrams, among other things. At a minimum, I wanted to create an online space where participants had an appropriate range of tools readily available to them to collaborate online.

## 3. Choosing a platform

Notion is a productivity application that is targeted at individuals and teams for planning and managing projects. It is a cloud-based platform, meaning it is accessible through a browser in addition to dedicated desktop and mobile apps. When I came across Notion during my search, I immediately became enthusiastic to try it out and evaluate whether or not I could complete the list of tasks I envisioned as needing to be able to do, as shown in Table 1.

I had read that this tool allows users to design custom dashboards tailored to any kind of project, therefore I began by seeing how it could be used to create and design a custom workspace that would work for my CL project. I began by creating a private workspace and within this familiarising myself with many of the templates it offers. In addition to this, I also experimented with the option to create single interactive pages that allow the integration and combination of elements such as wikis, databases, documents and spreadsheets from different sources. I found that Notion offered me a way to create a single interactive page for each workshop, where I could add the session's agenda and upload or create the mirror-data resources needed for the tasks I was designing. I could see it was possible to integrate "live" documents, where participants would be able to collaborate on activities and get creative all in one place. During my testing phase, I noticed that Notion might require some payment, however this did not deter me from choosing to use it. In my opinion, Notion ticked all the boxes for what I thought I



needed to do for my project – I could see that it would allow me to keep all CL resources in one location and allow my participants to access those resources throughout the project.

**Table 1. Evaluation of Notion’s capabilities to meet project needs.**

	Does this tool have the functionality to do the following?	Yes / No
1	To create a custom workspace to manage the overall project online	✓
2	To create a single interactive space for each workshop	✓
3	To create a space for each task and link tasks to the relevant workshop(s)	✓
4	To embed files of various formats (text, statistics, documents, images, audio, video etc.) for mirror-data and first-stimulus	✓
5	To share access to my projects overall workspace and its individual spaces with all participants	✓
6	To hide spaces from participants during session and task preparation and release access to them on a needs-be basis	✓
7	To provide customisable spaces for participants to collaborate online in real-time (viewing, editing, commenting).	✓

To get an idea of how Notion was used for a Change Laboratory project, I will provide some examples of how I used it for my research-intervention, by demonstrating examples corresponding to the first four items listed in Table 1. I plan to contribute further resources to this website to describe the other three items listed.

## 4. Examples of how I used Notion

### 4.1 How I created a custom workspace to manage my overall project online

I began by creating a new workspace which would be dedicated for my research-intervention. This involved a short setup process of letting Notion know how I planned to use Notion i.e., with a team or for personal use, followed by providing a name for the new workspace. At this point there was an option to invite participants or teammates immediately, however I chose to carry out this task later to give me time to set up the structure of my workshops (as shown in the next example) and be ready for the first scheduled workshop.

After setting up my overall workspace, I was presented with a Getting Started page with instructions on what to do next as illustrated in Figure 1. It was from here that I began setting up each workshop and task as demonstrated in subsequent examples.

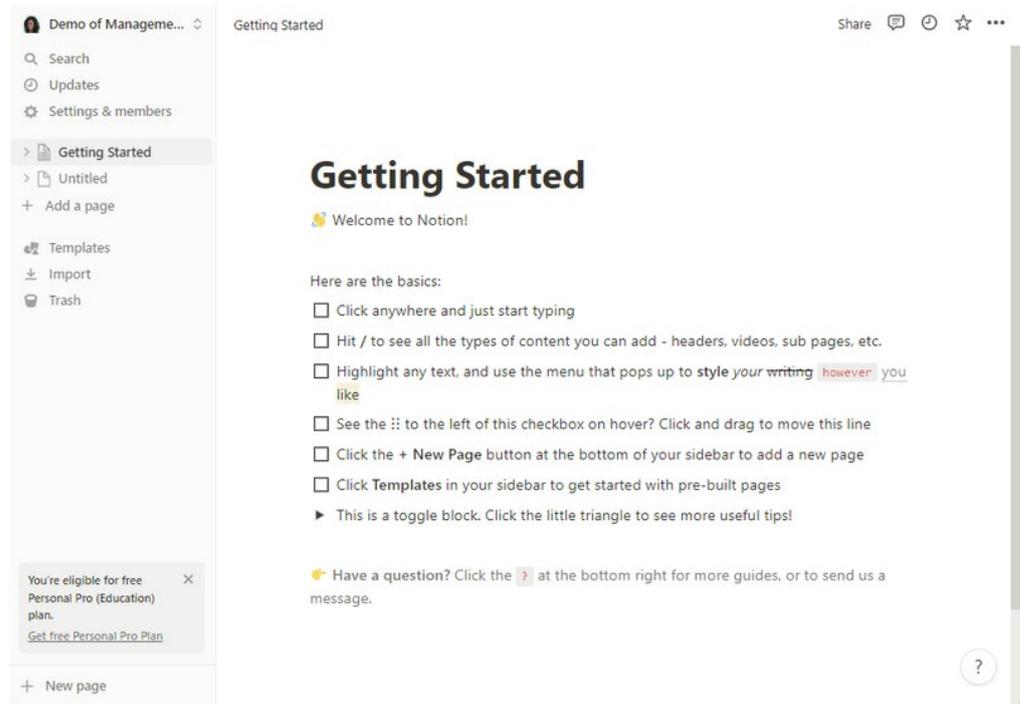


Figure 1: Getting Started instructions in Notion.

#### 4.2 How I created a single interactive space for each workshop

I added a new page, which would act as a single interactive page to manage and keep track of all workshops, while organising them clearly as shown in Figure 2.

Aa Name	Dates	Expansive Learning Action
Workshop 1	March 4, 2022	Questioning
Workshop 2	March 11, 2022	Historical Analysis Empirical Analysis
Workshop 3	March 25, 2022	Questioning Empirical Analysis Modelling
Workshop 4	April 1, 2022	Modelling Evaluation
Workshop 5	April 29, 2022	Modelling Evaluation
Workshop 6	June 21, 2022	Reflection

Figure 2: How I organised my workshops on one single interactive page.

I felt that this was the best way to organise and present details of all workshops with participants who had access to this page. Notion has a vast array of pre-made templates for a variety of project types which I could have used but I chose to build my own custom page. I added a database to display this information clearly, as illustrated in Figure 2. The first column lists the



name I gave to each workshop e.g., Workshop 1. The second column lists the dates each workshop was scheduled (as shared with participants prior to starting). I designed the third column in such a way that I could select from a set list the expansive learning actions for each workshop. Notion is highly versatile and allows for the creation of multiple columns of varying formats (i.e., text, numbers, date, URL, multi-select). In addition to the simple spreadsheet view of the database, I could also filter, sort and search through the data or easily change the layout to a Kanban board, timeline, gallery, calendar view and more.

## Workshop 1

📅 Dates March 4, 2022

☰ Expansive Learnin... Questioning

+ Add a property

👤 Add a comment...

### Today's Agenda

- Introductions 🗨️
- Why are we here?
- How are we going to design the outreach initiative?
- A look at current student figures
- Example of how outreach can help
- [Task 1A](#)

### Introductions

Introduce ourselves - your name, role, and anything else you wish to share with the group... 🗨️

### Why are we here?

Our goal here is to co-design a computing outreach initiative that meets the needs of 1 [redacted] School and [redacted] department of Computing.

- [redacted] School: want to offer its students additional computing activities
- Department of Computing: want to expose secondary school students to computer science, female students in particular, and to boost interest in pursuing computing at third level.

### How are we going to do it?

Using a methodology known as Change Laboratory which can be described as:

“an *intervention-research methodology where people work together in a structured and cyclical way to envisage new activity in their organization*” (Engeström, Rantavuori & Kerosuo, 2013; Virkkunen & Newnham, 2013)

#### Change Lab Workshops:

- Involves bringing people together frequently (to maintain momentum) and in a structured manner.
- Typically used in any setting where a problem or need for change with current practices has been identified and the aim of the workshops is to generate and implement a new models.

**Figure 3: Screenshot of how I structured workshop 1 content on a wiki page, exactly as it was shared with participants. Organisation names have been blurred out to preserve anonymity.**

The names in the first column are configured as hyperlinks, meaning when they are clicked on users are redirected to a separate page containing that workshop's content as illustrated in Figure 3. I demonstrated how this worked to participants during the first workshop when introducing them to this platform. Figure 3 shows how I structured workshop 1 (with identifying information blurred out) as a wiki page, which includes the name of the workshop, the date,



headings, colours, bullet lists, quotes, emojis, and a link to a task’s dedicated space as demonstrated later (in Figure 5).

#### 4.3 How I created a space for each task and linked each task to the relevant workshop

Similar to how I setup a single interactive space to organise and present details of all workshops to participants, I also created an interactive page to create and manage all tasks in a database as illustrated in Figure 4. The layout I chose is similar to Figure 2, however the main difference with this page is that I configured it in the page’s settings to hide it from participants. Instead, they were granted access to the individual pages of each task from within the relevant workshop wiki page as shown in Figure 3 for Task 1A. My reason for designing it this way was to allow me to adapt my initial design of tasks in-between sessions as the project evolved, allowing for participants to exert transformative agency.

Aa Name	Workshop #	Date	Status	Expansive Learning Action	
Task 1A	Workshop 1	March 4, 2022	Completed	Questioning	
Task 2A	Workshop 2	March 11, 2022	Completed	Historical Analysis Empirical Analysis	
Task 2B	Workshop 2	March 11, 2022	Completed	Historical Analysis Empirical Analysis	
Task 3A	Workshop 3	March 25, 2022	Completed	Questioning	
Task 3B	Workshop 3	March 25, 2022	In Progress	Modelling	
Task 4A	Workshop 4	April 1, 2022	In Progress	Modelling Examination	
Task 5A	Workshop 5	April 29, 2022	To-do	Questioning	
Task 5B	Workshop 5	April 29, 2022	To-do	Modelling Examination	
Task 6A	Workshop 6	May 27, 2022	To-do	Examination Reflection	

+ New

COUNT 9

**Figure 4: Sample organisation of Tasks numbered per workshop in Notion.**

The first column lists the name I chose for each task e.g., Task 1A signifies that this task is the first (A) task of the first workshop (1). The second column identifies which workshop each task is linked to. The third column shows the date of the workshop containing the particular task. I designed the fourth column to keep track of the status of each task, because I felt it would be useful to remember when a task was in one of the following states; “to-do”, “in progress” and “completed”. I updated these as we progressed through tasks and workshops. The fifth column was useful for me when tracking the expansive learning actions of the project.

Similar to how I set up the workshops, each task name was configured as a hyperlink so that, when clicked, users would be directed to a separate page containing that task’s content. Figure 5 demonstrates a task that I had designed and set up prior to workshop 2. I initially set up this page to be hidden from participants (in the pages settings) until the day of the workshop. My reason for this was to allow completion of in-between session tasks following workshop 1.



As shown in Figure 5, the task was designed around four questions, two for each of the partner institutes for this CL project. This sample task shows how I had the page created, with relevant details and questions and skeletal bullet lists underneath each question ready for population during participant discussions.

**Task 2A**

Date: March 11, 2022

Status: To-do

Expansive Learnin...: Historical Analysis, Empirical Analysis

Workshop #: Workshop 2

+ Add a property

Add a comment...

The aim of this task is look at previous computing exposure/outreach in both settings to give everyone an understanding of what has been tried in the past & what did/didn't boost student interest.

### Questions for the School

What computing initiatives has the school tried in the past? Did it work well or not?

- List

What computing activities are currently in place?

- List

### Questions for the Department of Computing

What types of outreach has the department done in the past? When did they start? Impact?

- List

What types of outreach is the department currently doing?

- List

**Figure 5: Example of a Task I had prepared ahead of a Workshop, ready to add participant generated answers.**

Similar to this task, I prepared all other tasks on Notion in a similar fashion ahead of each workshop, making them readily available to make visible to participants when required.

#### 4.4 Examples of how I embedded files of varying formats

I found that Notion supported the integration of files of any format I tried to embed into my project workspace.

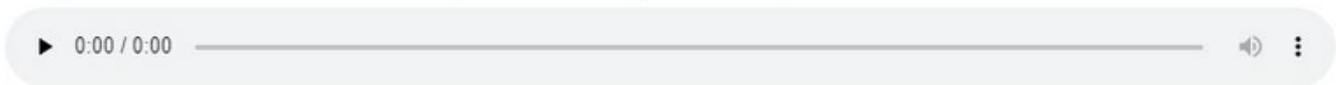
For example, when planning my first workshop I really wanted to embed a podcast audio file I had sourced as appropriate mirror-data to present practice problems to participants. Figure 6 illustrates how that was successfully embedded on a workshop wiki page.



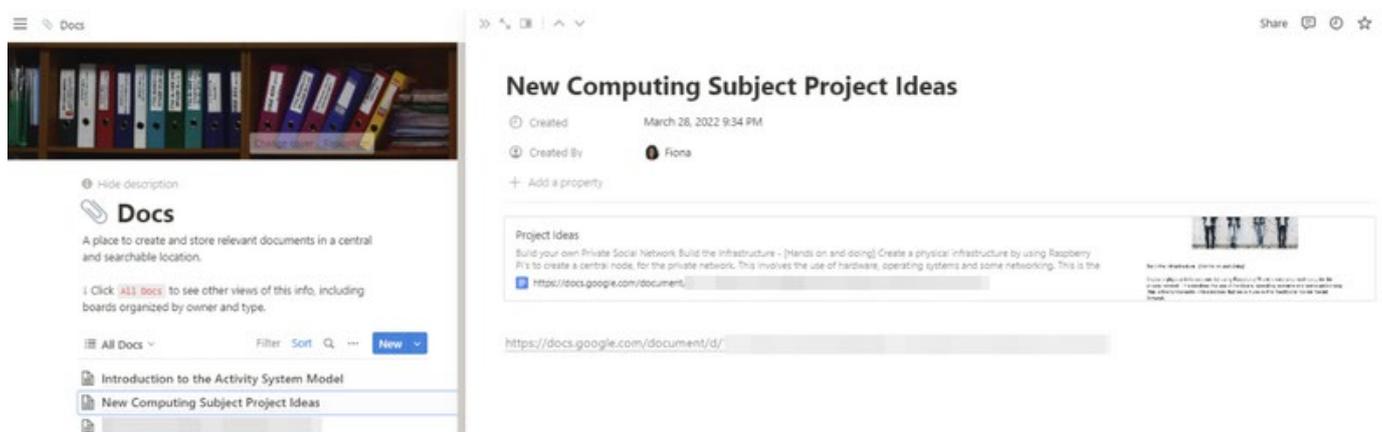
## Example of how Outreach experiences can help

### Listen to a Female Students Story

Press play to listen to a podcast snippet of a female computing student describing how she decided to pursue computing in college as a result of a secondary school experience [1 min 36 secs]



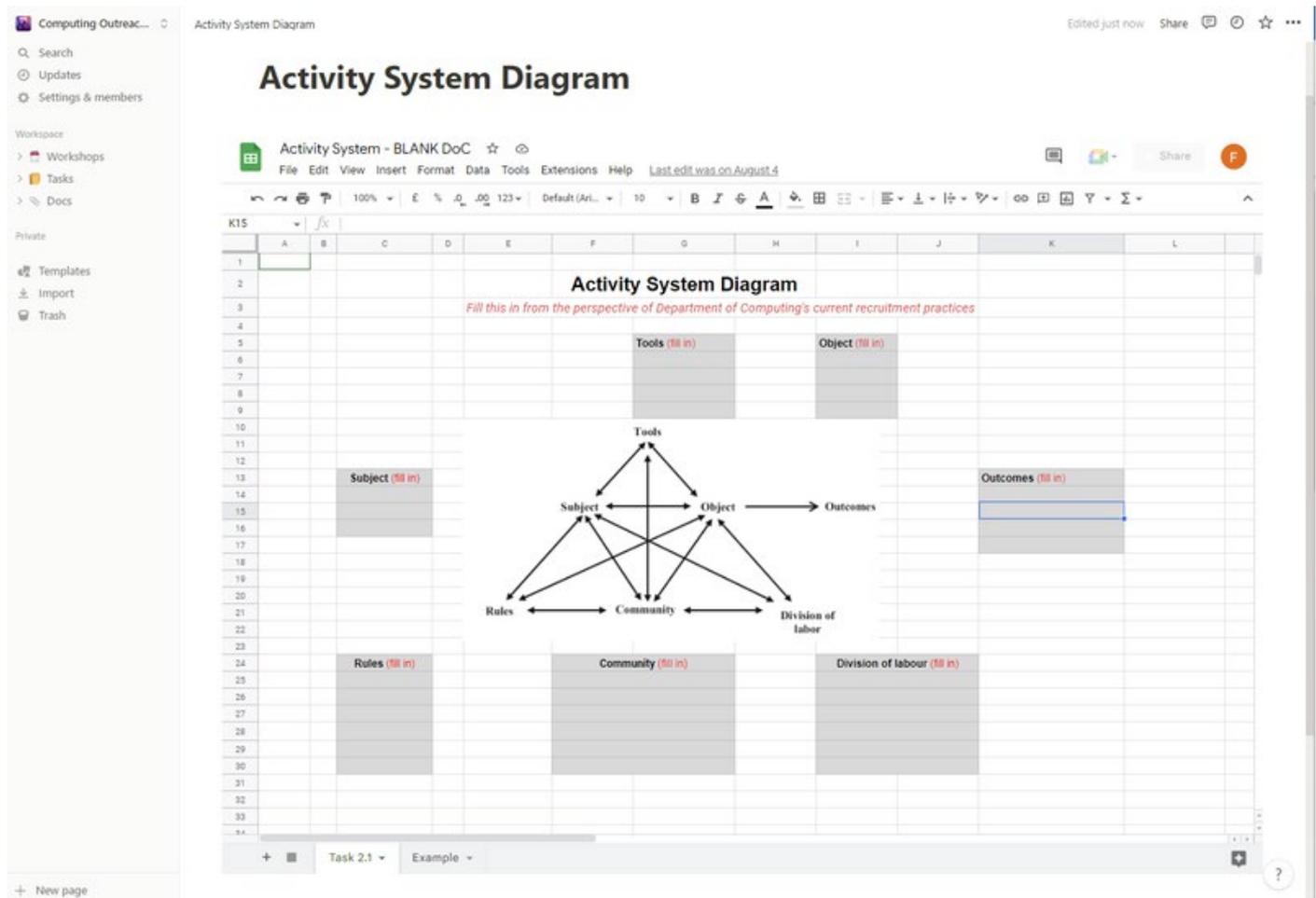
**Figure 6: Example of a podcast audio file embedded into a wiki page for use as mirror-data.**



**Figure 7: Sample workspace page where I embedded a document from Google Drive (identifying information has been blurred out to preserve anonymity).**

Figure 7 shows two screens. The left window shows a sample list of documents which were uploaded to the workspace and were made available to participants on a dedicated page. The window on the right shows the selected document (second item in list) in more detail on a separate wiki page, exactly as it was shared with participants. This document was being shared from my Google Drive. When choosing to embed this file, Notion offers a variety of views, I chose the option that shows the document title, the first couple of lines of its content, an image of what the file content looks like and the shared link to the google doc. Notion has the functionality to connect to and embed files from other well-known external tools also, such as OneDrive, Zoom and Slack.

Another example of connecting with Google Drive includes my integration of blank Activity System diagrams that I had previously created in Google Sheets. During my CL project I wanted to embed these diagrams into a wiki page. Figure 8 shows how I successfully did this. The benefit of doing this was participants could edit it directly through Notion, avoiding the need to ask participants to use an additional tool and therefore keeping all resources in one single location.



**Figure 8: An editable and blank Activity System Diagram embedded from Google Drive and ready for participant collaboration.**

## 5. Would you like to view a demo?

If you would like to get a feel for Notion, I have created a demo workspace which you can visit and look around at how I have created wikis, databases and other pages to organise and manage a fictional Change Laboratory.

The demo workspace can be accessed via the following link: <https://bit.ly/3DYMxCO>

## 6. Summary

I believe Notion might be useful for other people who would also like to project manage their Change Laboratory sessions from one single location. Keep in mind that the examples I have provided show how I used Notion to manage my project. Thanks to the flexible nature of Notion, you can sculpt it to the unique needs of any project. Another benefit is that you can always tweak and update your implementations as your project evolves. My use of Notion has been sculpted around the needs of my project and my workshops; other people's use of Notion could be completely different.



## About the author

**Fiona Redmond** is a Computer Science lecturer in the Department of Computing in the Carlow campus of South East Technological University in Ireland. Fiona is PhD student on the programme *Higher Education: Research, Evaluation and Enhancement* at Lancaster University. Fiona has a deep commitment to Computer Science Education, with a particular emphasis on broadening participation and diversity in the field. Her PhD project, under the supervision of Dr. Brett Bligh, includes supporting partners to co-design an outreach initiative to attract female students into Higher Education Computer Science using the innovative Change Laboratory methodology.



**Email:** [fiona.redmond@setu.ie](mailto:fiona.redmond@setu.ie)

**Twitter:** [@fionaredmond](https://twitter.com/fionaredmond)