



ICT Industry Placement

REFLECTION REPORT

Xiating CAI



1. Goals, methods and work completed

Summary of goals

The main goals of the placement are to develop the ehtas.wikidot.com site that follows the same style of ehwa.wikidot.com, and tools to enable streamlined loading of material by less tech skilled people, my placement goals includes:

- Developing an understanding Wikidot web language and applications;
- Using the replica website and to assist with loading the material to the site;
- Developing enhancements to the website as discussed with the client;
- Developing tools to enable material loading by less tech-skilled people;
- Producing a manual/guide for on-going adding of material/editing of material for members who have a lower level of computer coding skills;
- Developing a map view for Tasmania heritage walking tour.

Methods

I planned to spend the first 2 weeks learning the wikidot language and framework, and then start to develop the ehtas site based on my understanding. I have used the following key methods to achieve my goals.

Firstly, communication. I maintained good communication with my colleagues and client during the placement so far. Getting feedback from them via email and weekly scheduled video meetings. Once the desired requirement is clearly defined by the client. Such as an easy, user-friendly, less or no coding required material loading process. I looked through the Wikidot site reference, and external sites, such as Google Suit. Since the client is already familiar with Google Drive, and it is a drag-drop uploading interface. Google drive has been chosen as the backup database for all loading material. Where the client just needs to log in the admin account and upload the edited .docx file, or .pdf material.

Secondly, based on the client requirement, integrating Google drive material to the Wikidot site. As on Wikidot site, it still involved a fair bit of coding to change the font,

layout or picture on the page of biography for instance. To make it more editing user friendly, I used the <iframe> method to take a preview of the .docx file on Google Drive directly and show it on ehtas.wikidot.com site.

For example, on the following page: <http://ehtas.wikidot.com/people:butters-john>, the code on Wikidot site is just a few lines:

```
[[html]]  
<iframe width="100%" height="900" title="Sticht, Robert bio v1.BC"  
src="https://drive.google.com/file/d/1MRnSzF8clnmAU4YBGH91OfEMHVxeLjt2/previe  
w"></iframe>  
[[/html]]
```

There are three advantages to using Google Drive and <iframe>:

Firstly, an easy to use interface for uploading and updating. The client can modify the document on Google Drive to update on ehtas.wikidot.com site as well, since it gets data from Google Drive directly.

Secondly, more storage space for the material. There is 15 GB free storage space on Google Drive which is almost 3 times more than the space on Wikidot.

Thirdly, if the Wikidot site is not supported, or the service stopped. All the materials are backed up on Google Drive.

Work completed

1. Finalised the ehtas logo based on the requirement of the client.
2. Created the engineeringheritaget@gmail.com google account and the Google Drive folders for loading materials and backup files.
3. Created and Integrated ehtas.wikidot.com to Google drive.
4. Created tours and maps section on the nav bar, and home page.
5. Created and finalised the Hobart walking tour routes map via Google map <http://ehtas.wikidot.com/tours:hobart-cbd>
6. Created 8 word document guides and 3 video guides to assist members to use wikidot.

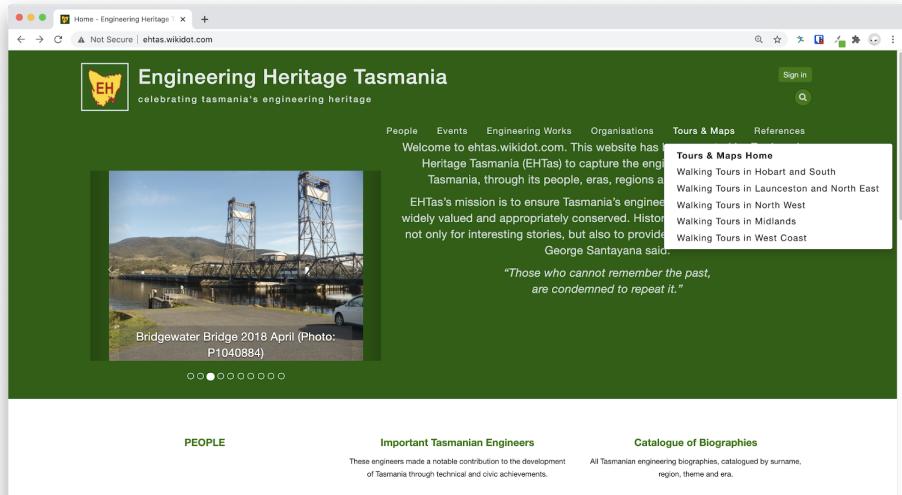
Note: Please see the next section for the work completed evidence.

2. Performance analysis and self-evaluation

Goal #1	Develop an understanding of coding with Wikidot web language and applications
Result	Achieved
Details	I have developed my understanding of Wikidot web language and basic tools by learning from co-workers from western Australia, researching and reading a document of Wikidot language and applications.
Challenges	The first challenge I encountered is it's remote-based work, which means I will be by myself in front of the computer in the home. I received support from video meetings, emails with EH Western Australia members and admins. It allows me to learn the language in a fast way. I also kept a weekly meeting with my client (EH Tasmania) to get requirements and feedback regarding the site, pushing me to learn more about this language and the application that was used.

Goal #2	Using the replica website and to assist with loading the Tasmanian material;
Result	Achieved.
Goal #3	Developing tools to enable streamlined loading of material by less skilled people.
Result	Achieved.
Details	I have developed the EH Tasmania site based on the copy of Western Australia site as the client wishes to continue the same format and way of organising the file and information on Wikidot site. I collected the general information and documents that the client wishes to upload to the site, and analysed the benefits and challenges that the client may face, proposed a new and more user-friendly way - the integration of Google drive to assist with uploading the material.

Challenges	<p>The google drive has a shared link that allows anyone to click and view the material. However, the link alone on the wikidot site is not vivid on the wikidot site. I overcome this issue by using the <iframe> html framework, and change the <code>view</code> in the shared link to <code>preview</code> which allows the projection of the document to be shown on wikidot site directly. Please refer to the following example code:</p> <pre>[[html] <iframe width="100%" height="900" title="Sticht, Robert bio v1.BC" src="https://drive.google.com/file/d/1MRnSzF8clnmAU4YBGH91OfEMHVxeLjt2/preview"></iframe> [[/html]]</pre> <p>Another challenge is that the pictures in the preview were shifted to a bit wrong location if the google drive document is a .docx file. It was a new discovery at the later stage, possibly due to an update from google. To fix the picture alignment issue, I found the solution - changing the file format to pdf.</p>
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Goal #4	Developing enhancements to the website application as discussed with the client.
Result	Achieved
Details	<p>I have developed the map tour and added this section to the wikidot page. The section on the homepage are located at the navigation bar at http://ehtas.wikidot.com/</p>  <p>Using the tab method to simplify the structure of wikidot, by displaying multiple sections through tabs on one page reduces the</p>

number of clicks that a user has to navigate to a sub topic page. For example: <http://ehtas.wikidot.com/works:thematic-histories>

The table below categories Thematic Histories of Engineering in Tasmania.

Construction Materials	Electricity	Mining	Paper Manufacture	Shipbuilding	Transport
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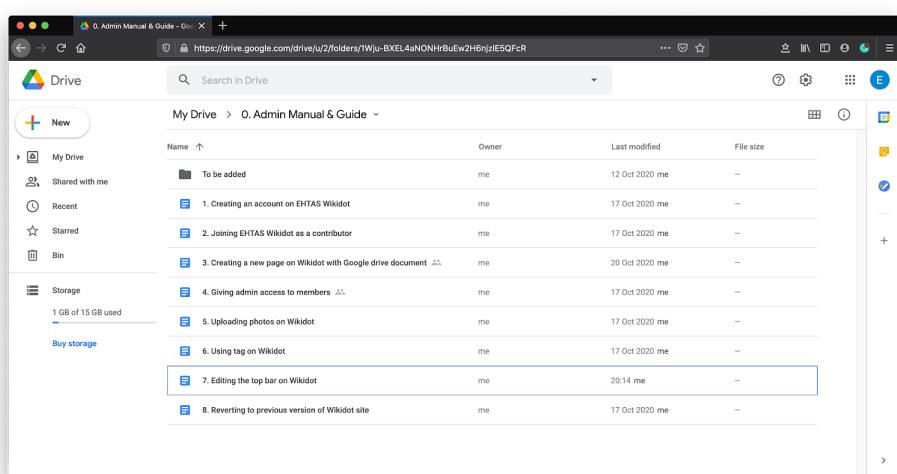
- Mining
 - Mining and agricultural were the corner stones of Tasmania's economy over many decades and to some extent continue to be so. Although mining activity was undertaken in most parts of the state, it tended to be concentrated along the and inland from the West Coast.
 - Coal
 - Tin
 - Iron
 - Limestone
 - Gold
 - Silver
 - Copper
 - Osmiridium

Comparing to the original source of the page structure at WA: <http://ehwa.wikidot.com/places:infrastructure>

Home > Engineering Works > WA Engineering Infrastructure

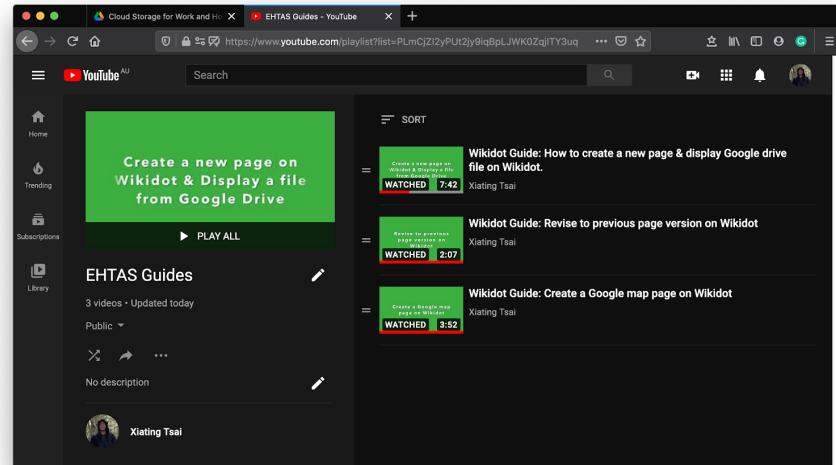
Air Transport	Gas	Drainage	Electricity	Ferries	Gas	Ports and Harbours	Railways	Roads and Bridges	Suburban Rail	Telegraph	Telephone	Trams	Trolley Buses	Wastewater	Water	Wireless
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Goal #5	Producing a manual/guide for on-going adding of material/editing of material for use by existing members who have a lower level of computer coding skills.
Result	Achieved
Details	I have created 8 guide documents on Google drive: https://drive.google.com/drive/folders/1Wju-BXEL4aNONHrBuEw2H6njzIE5QFcR?usp=sharing

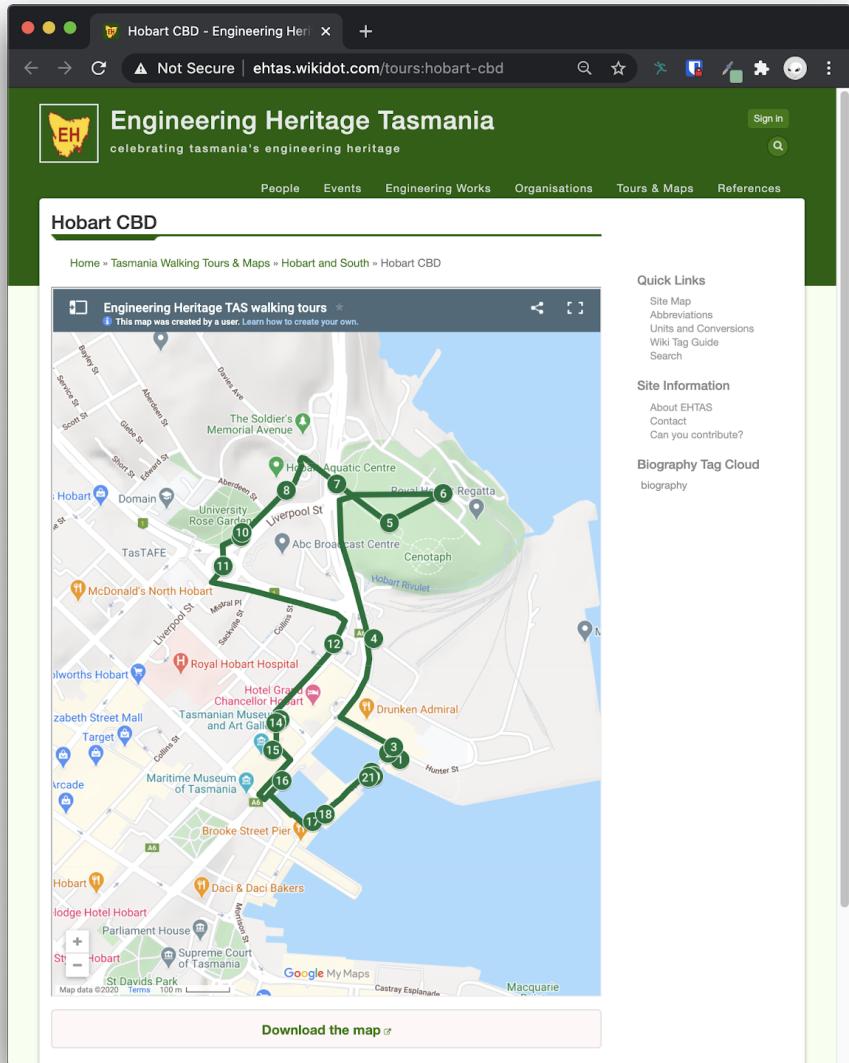


and 3 video guides on youtube:
<https://www.youtube.com/playlist?list=PLmCjZI2yPUt2jy9iqBpLJWKOZqjITY3uq>

that assist less computer coding skills members to use wikidot site and upload materials to the site. I achieved this by first actively listening to the client's needs on the support, and by collecting requirements during the weekly meetings.



Challenges	I received feedback from the client that in some of the guide documents, the critical steps were not clearly emphasised, as a result, the client was not able to complete the task. By communicating with the client, I modified the key words in the guide and made a video guide to assist the client better.
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Goal #6	Developing a map view for Tasmania heritage walking tour.
Result	Achieved
Details	<p>The walking tour map has been created via my map - Google maps (https://support.google.com/mymaps/answer/3024454?hl=en&%3Bref_topic=3188329). After creating a map on google, the page are then shared to the wikidot site using the <iframe> html method, please refer to the following page as an example: http://ehtas.wikidot.com/tours:hobart-cbd</p>  <p>The walking tour map are mobile friendly, in the use case of mobile phone user, user can also download the map as a pdf file that is generated from the walking tour, please refer to the following pdf file as an example: Hobart CBD walking tour map.pdf</p>

Challenges	The map feature would be enhanced if the user's current GPS location is displayed. It requires the map to be mobile friendly and GPS active. By using google map page, when the user opens it up on a mobile phone, there is an option to open it in google map app, and then the user can see their current location and the tour at the same time. Another challenge is that the mapping tour requires to display multiple tours on one map, which requires a differentiation between different maps and it was solved by changing the route color and style.
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3. Integrated the skills/knowledge

During the uni study, I have developed the following skills:

1. Communication skills: I have interpersonal communication skills and the ability to work with people gained from working directly with teammates from India, China, Malaysian, Indonesian and Australia.
2. Web development skills. I have developed and owned the following sites: <https://mcctas.com.au/> virtual-studyhub.com/ <https://techbyte-v2.netlify.app/>
3. Programming skills. Familiar with C# software development, Raspberry Pi programming and have experience in Python data mining and visualisation. Skilled in UI/UX design and web development such as PHP, MySQL, JavaScript, CSS, Bootstrap, and jQuery.
4. Computer and human interaction design skills. I have learnt this from the VR/AR and Web development unit where I need to design and implement the computer and human interaction.
5. Team management skills. I have gained collaborative team management skills as evidenced by award-winning team projects as well as volunteering work overseas, e.g. leading a team that won the GovHack 2020, Uhack 2019 Competition.

During this placement, I integrated the knowledge from the following unit and area of study, web design and development, computer and human interaction, knowledge management, project management and agile development.

Skills and knowledge that I used in the placement:

1. Communication skills: I communicated with my client, manager and coworker via video call and email. When problems or challenges arise, I am able to integrate my communication skill to get the information across smoothly and effectively.
2. Web development skills (Wikidot language): I used my web development knowledge to develop the understanding of the wikidot language and tools. With the understanding of web development, it enhanced my ability to learn a new language in web development. I was able to pick this wikidot language framework in less than 3 weeks of time.
3. Learning skills: In this project, I integrated Google suit to the wikidot site, where I need to discover new potential, and the google map integration.
4. Problem solving skills: During the project, when a new problem or issue is discovered by the team. I was able to target the issue and offer a solution in time. For example, when the picture alignment issue appears in the .docx file on google drive preview. I did a quick check, and discovered the cause due to a google update. And the .pdf file was not affected, so I offered the solution to transfer the .docx file to .pdf file to solve the picture alignment issue on wikidot.
5. Active listening skills: Since it is a remote work, communication is the key, to be able to communicate efficiently. I used my active listing skills to capture the information and wish the client had, it helped me to target client requirements clearly during the project.

4. Experience gained

I have learnt the following through this placement experience:

1. Working place communication skills. Remote working and communication is the theme during this placement, I communicate with my coworker and client via email and video calls weekly, where I gained a lot of insight of remote working and supporting skills. Such as how to screen connect to assist the coworker's computer and schedule zoom meetings.

2. The K.I.S.S. (Keep It Simple and Stupid) principle. This is what I learnt from my co-worker and client, the KISS principle taught me to develop a project in the most simple and efficient way, it keeps the user in mind, to make the user's journey easier.
3. How to manage a team using a result driven management style. My manager adopted the result driven management on this placement project, it gave me a lot of freedom and time to work on the project on my own pace, by giving guidance and feedback where necessary helped me to keep motivated and align with the project aims.
4. Wikidot Web development and design. The project is mainly on wiki site development, I have learnt and got familiar with the tools and language of wikidot family. By getting feedback from the client regarding the design of the site helped me to gain understanding of the website design and user experience design.
5. The Australian working culture. By working in a team and clients from Australia, I learned and observed the Australian working culture, which is not stressful but respectful. It helps me to further develop my skill and career in Australia.

What I need to improve / to learn more in the further:

1. App development. I have gained web development knowledge, however, I found myself limited while the client was asking for an app development idea.
2. Project management. This placement is a self-managed project, most of the work is done by a 1 person team. I would like to develop project management skills in a larger team in the future, so I can be better prepared in the working place in a larger team size.
3. A deeper knowledge of web and app development. I used my web development knowledge and skills in this project, however, I would like to develop a deeper understanding of the web frames and tools that are available for different web and app development. So in the future workplace, I can be better prepared.

5. Evidence of work:

Engineering Heritage Tasmania Wikidot site

<http://ehtas.wikidot.com/>

Wikidot Video Guide 1: Create a new page & display Google drive file on Wikidot

<https://youtu.be/fevpZiVAknY>

Wikidot Video Guide 2: Create a Google map page on Wikidot

<https://youtu.be/xf1stAChnHw>

Wikidot Video Guide 3: Revise to previous page version on Wikidot

<https://youtu.be/ozbgoEYEWF4>

Wikidot Guide 1: Creating an account on EHTAS Wikidot

<https://docs.google.com/document/d/1t3qCr6hxcyta-D4fwgSskqnOQU7pfkLMT62a8WTzVik/edit?usp=sharing>

Wikidot Guide 2: Joining EHTAS Wikidot as a contributor

https://docs.google.com/document/d/1w1kSEdCvizqGKBiyFDi7kpWH6ZAUVPp9lzp_n_JZB4tk/edit?usp=sharing

Wikidot Guide 3: Creating a new page on Wikidot with Google drive document

https://docs.google.com/document/d/1hNObLA0Wbo0NhyQKtG1YjRe03GrZ2VMiTmbPqbm_rTQ/edit?usp=sharing

Wikidot Guide 4: Giving admin access to members

https://docs.google.com/document/d/1v-BvZREcoMrLyAAliRfyjR2_9QkKycfh-lfHXP4n10U/edit?usp=sharing

Wikidot Guide 5: Uploading photos on Wikidot

<https://docs.google.com/document/d/15jDe1PhI6PZf9IkZEHCuFoPcJQR5egT846eHZsw98/edit?usp=sharing>

Wikidot Guide 6: Using tag on Wikidot

https://docs.google.com/document/d/1qnlnidYazRInsQL5yUHsTtGj-_p3d8yZC5SQCIJmwfo/edit?usp=sharing

Wikidot Guide 7: Editing the top bar on Wikidot

<https://docs.google.com/document/d/1GdHDRuX2niJdL1c6xrc8GHxZFkZ2pxB6gwN5RpUNZSM/edit?usp=sharing>

Wikidot Guide 8: Reverting to previous version of Wikidot site

<https://docs.google.com/document/d/1FPGIFByaevejrdat0j0Ats9WuhzyVrRSsLK6XTyb248/edit?usp=sharing>