Online Text Analysis Tool for Welsh Poetry

Introduction

Online teaching and learning tools are valuable assets to consolidating multiple physical resources into a single, easily accessible platform. This allows students to access reliable study materials anytime and anywhere without the need to carry or purchase physical texts.



Fig.1&2: *Oxford Literature Companions,* William Shakespeare

Traditional textbooks, such as *Oxford Companions*,[1] are constrained by space and therefore, provide a condensed analysis that focuses on key themes. While this approach has long supported students effectively for centuries, the expansive nature of online platforms offer greater potential. For instance, utilising the multi- layered structure of a website allows a more detailed and flexible approach to text analysis, which could surpass the limitations of print. However, online text Welsh poetry text analysis tools (WPTAT) remain limited, leaving a significant gap in the availability for accessible, specialised digital study materials. Therefore, this project will focus on proposing an online text analysis tool designed to support the study of Welsh poetry.

[1] ed. M. Dobson, S. Wells., *Oxford Literature Companions*, https://global.oup.com/academic/product/the-oxford-companion-to-shakespeare-9780198708735 [Accessed 10th April 2026.]

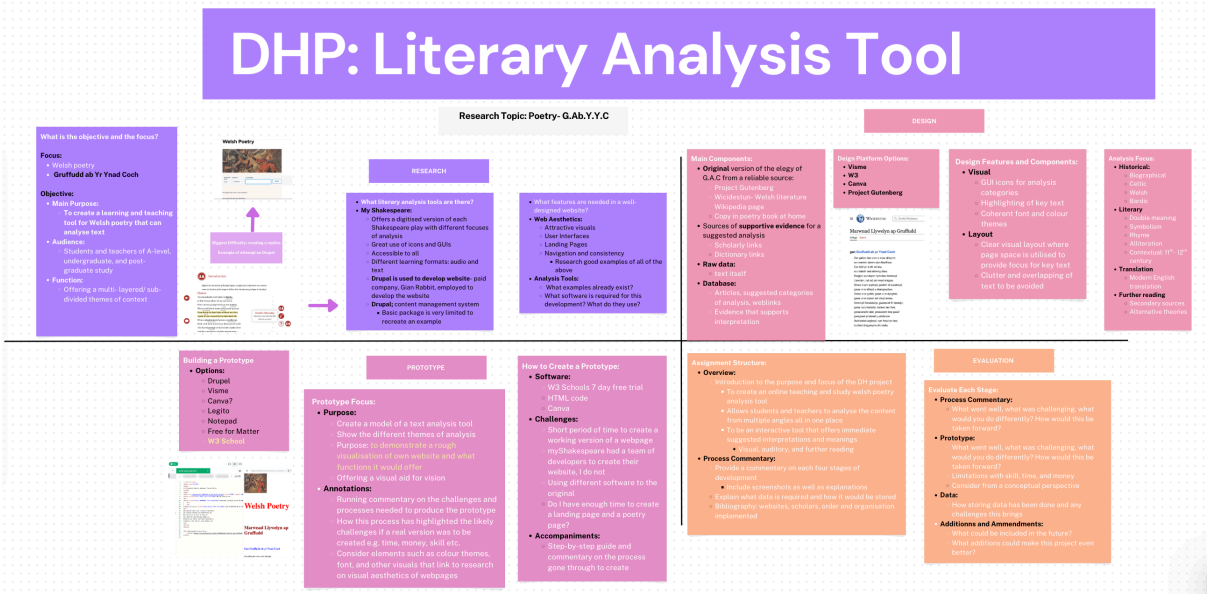


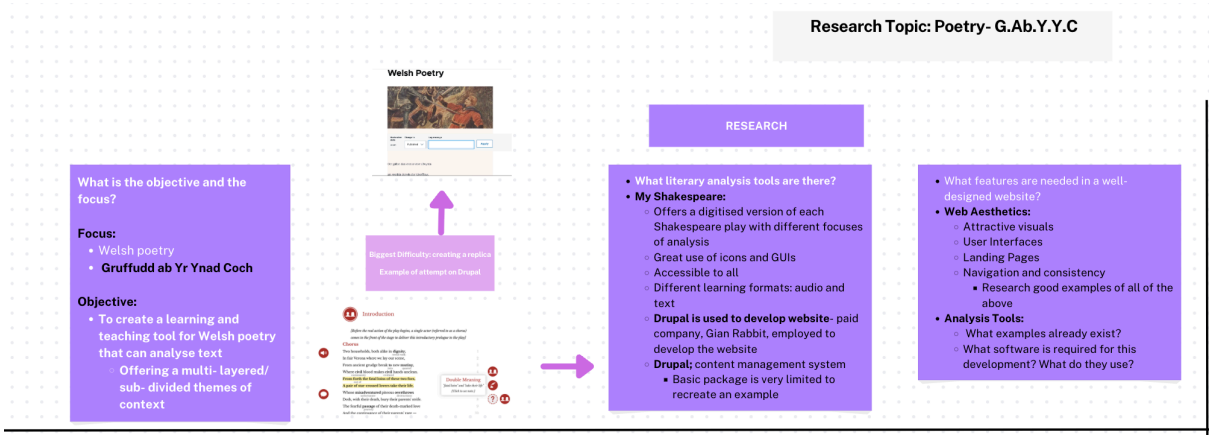
Fig.3: Project Summary created on *Canva*

This project follows a Design and Technology methodology, structured into four stages:

- Research
- Design
- Prototype
- Evaluation

A visual overview of the process was created on *Canva*, with each stage supported by reflective commentary outlining the development of the Welsh Poetry Text Analysis Tool (WPTAT).

Research



Objective

- **Purpose:**

The objectives of project to design a conceptual WPTAT are as follows:

1. To design a conceptual web- based platform that supports the learning and teaching of Welsh poetry.
2. Producing a prototype that focuses on four key webpage designs:
    - Homepage
    - Poetry landing page
    - Individual poetry page
    - Bibliography page
3. Using *Marwnad Llywelyn* by Gruffudd ab Yr Ynad Coch to illustrate the website's analytical potential.
4. To evaluate the prototype and its future the possibilities.

- **Audience**

The intended audience includes:

- A level students
- Undergraduates
- Postgraduates
- Teachers
- Lecturers
- Academics

- Accessibility: The website needs a balance of professionalism and accessibility.
- Perhaps an annual fee for institutional subscriptions to provide free access to students and teachers.
- Perhaps a 'light' free version of the website could be made available to the public.

Web Aesthetics:

Research into digital platforms highlights the importance of visually engaging and user-friendly designs[2]. Studies surrounding usability suggest that the following components are key for improving user engagement and encouraging repeated use:[3]

- Clear layouts
- Colour themes
- Familiar and functional navigational tools
- Consistent aesthetics
- Visual interest

- **Graphical User Interfaces:**

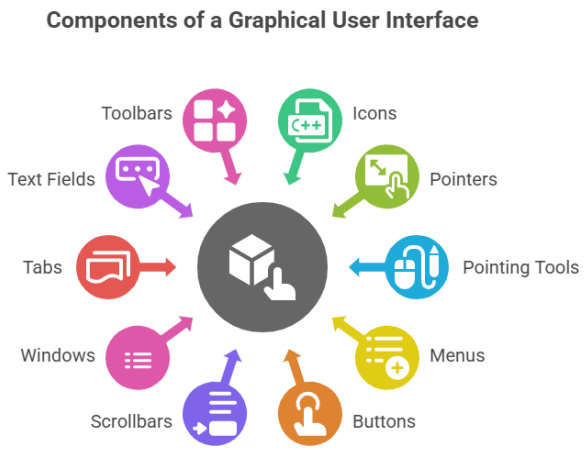


Fig.4: Visual representation of the components that come under the umbrella of a Graphical User Interface from *Geeks for Geeks*

[2] J.J. Campbell, Z. Huang., Usability analysis of company websites, *The Journal of Computer Information Systems*, (Stillwater, 2007), pp.117-123.
[3] Ibid., pp.121-124.

Graphical User Interfaces (GUIs) are central to effective web design because they support both navigation and visual engagement. [4] Websites that have familiar layouts, clear navigation,, and cohesive aesthetics are often perceived as more professional and accessible. [5]

- **Landing Pages:**

Research into landing pages focused on how institutions visually communicate their identity through design, [6] demonstrating how effective landing pages should balance aesthetic appeal with usability and clear functionality to externally communicate their ethos.

Therefore, the examples below will examine how websites successfully combine functionality with strong visual identity.

Examples:

Spotify

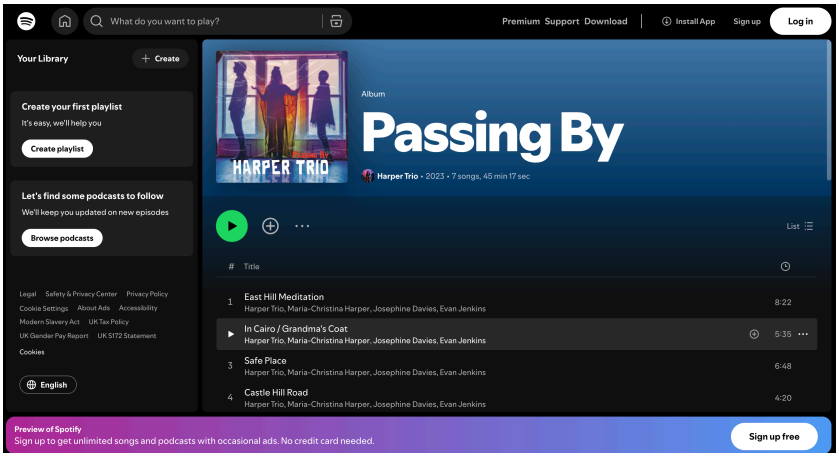


Fig.5: Visual representation of the components that come under the umbrella of a Graphical User Interface

[4] geeksforgeeks.org
[5] L. Dung, M.S. Poole, Aesthetics design of e-commerce webpages- Webpage Complexity, Order and Preference, *Electronic Commerce Research and Applications*, 11:4, (Elzevir, 2012), pp. 420-440.
[6] D.A. Ellis, H. L. Merdian., Thinking outside the Box: Developing Dynamic Data Visualizations for Psychology, *Frontiers in Psychology*, 6, (Switzerland: Fronter Media S.A.), pp.4-9.

Spotify[7] provides a strong example of how effective user interfaces can reinforce brand identity:

- Aesthetics and Navigation: *Spotify*'s use of bold typography, recognisable icons, and consistent colour schemes creates a highly intuitive experience.

- Consistency and Familiarity: Universally recognisable symbols such as "play", "home", and "search" allow users to navigate quickly, whilst the repeated use of visual themes strengthens user- familiarity.
- This visual consistency creates a positive user experience that encourages continued use and engagement with the platform, whilst also strengthening the brand's identity.

mySHakespeare:

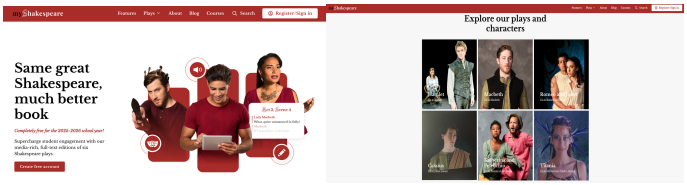


Fig.6: Examples of consistency among the different areas of *myShakespeare*'s homepage

Similarly, *myShakespeare*[8] offers the closest comparison to the proposed WPTAT as a demonstration of balancing functionality with effective visual design.

- Aesthetics and Navigation: *myShakespeare* combines educational functionality with visually coherent design through consistent:
    - Typography
    - Colour palettes
    - Navigational tools
- maintains a consistent visual identity through its uniform colour palette, typography, text sizing, and use of large navigational images.



Fig.7: Graphic User Interfaces used to navigate the different plays on *myShakespeare*'s homepage

[7] Spotify, *Homepage*, https://open.spotify.com/ [Accessed 11th April 2026].
[8] myShakespeare, *Homepage*, https://myshakespeare.com/ [Accessed 11th April 2026].

- Consistency and Familiarity: Breadcrumb navigation and recognisable icons remain visible across all pages, improving the usability and encouraging quick familiarity for users.

Natural History Museum

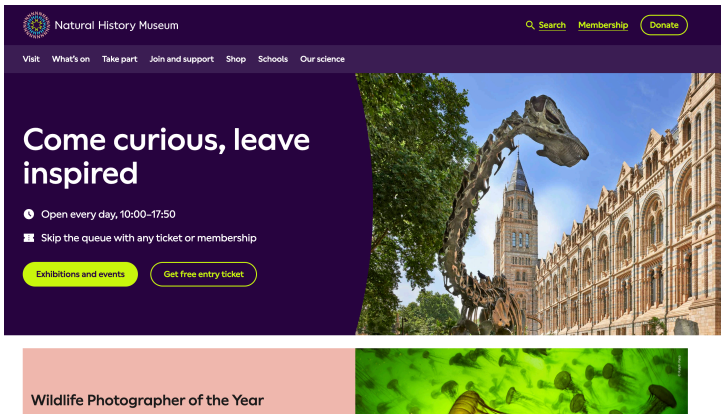


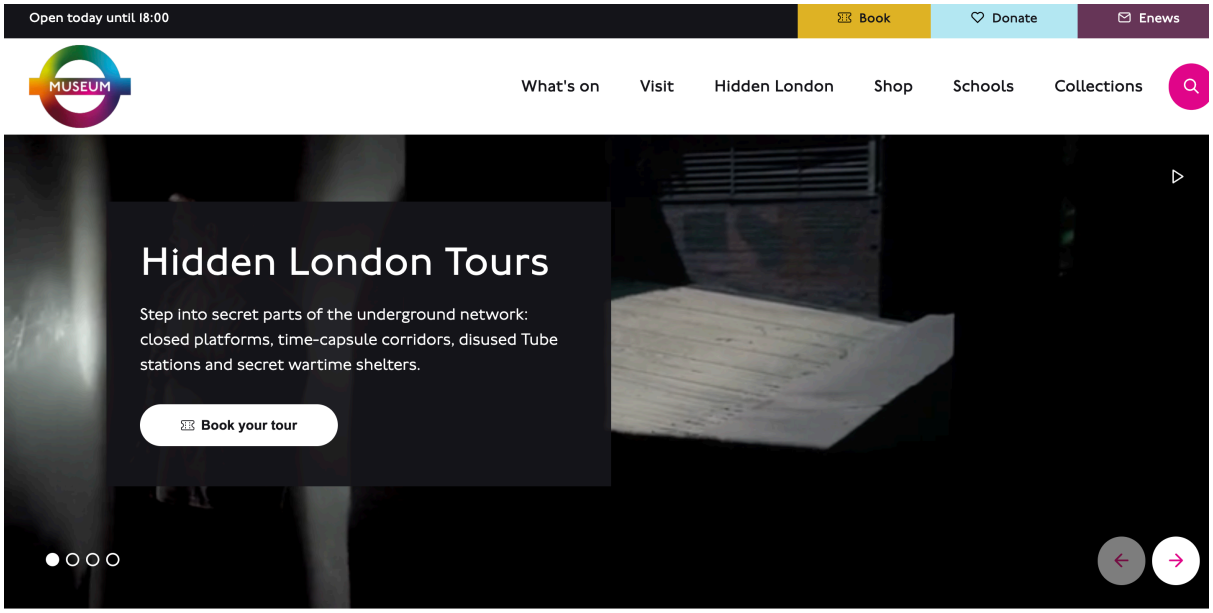
Fig.8: Homepage of the *Natural History Museum* website

The *Natural History Museum*[9] provides a strong example of how an iconic institution's website can reflect its reputation through effective design.

- Aesthetics and Navigation: The website demonstrates the balance between vibrant aesthetics and simplistic design.
- Recognisable imagery immediately reflects the identity and prestige of the museum whilst functions as navigational icons.
- The bold layout remains carefully spacing between components to prevent cluttering e.g. the 'donate' icon is consistent with the colour theme without being intrusive or bombarding.
- Familiarity and Consistency: Subtle interactive features, including hover effects and cursor changes, enhance the familiarity and easy of use.
- Throughout the website, the same colour palette, navigational tools, and imagery are used, enhancing the sense of simplicity and familiarity.

[9] The Natural History Museum, Home Page, nhm.ac.uk [Accessed 1st April 2026].

London Transportation Museum



Welcome

Fig.9: Homepage of the *London Transportation Museum* website

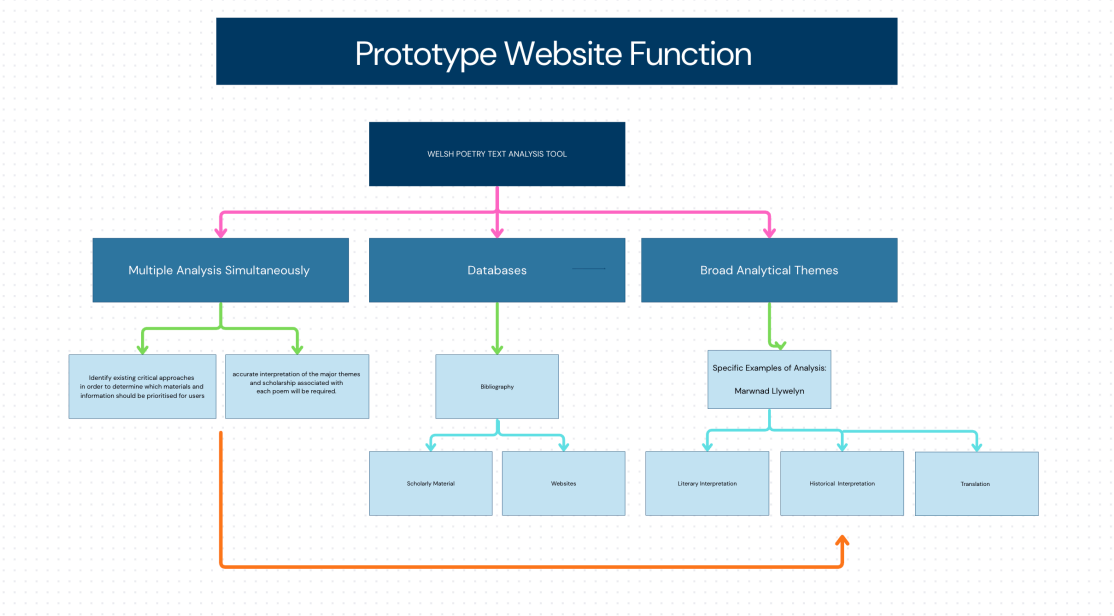
The *London Transportation Museum*[10] demonstrates a few subtle choices that may provide examples of how certain aesthetic choices can clash with functionality.

- Aesthetics and Navigation: The homepage uses a fast-paced video with rapid imagery changing from light to vibrant as an intended reflection of the London Underground atmosphere.
- However, although the homepage effectively reflects the atmosphere of the London Underground, the rapid imagery and overly vibrant palette create a visually busy experience that distracts from the website's primary function of providing information quickly.
- Familiarity and Consistency: Along with the bold tiled search and home buttons, the image interfaces offer a more cohesive and clear sense of usability.
- Despite these issues, the wider website remains consistent in its layout and visual style, particularly within its exhibitions and events pages.

[10] London Transportation Museum, *Homepage*, https://www.ltmuseum.co.uk/ [Accessed 1st April 2026].

Aesthetic Analysis Tools

The primary function of WPTAT is to provide multiple forms of poetic analysis simultaneously.

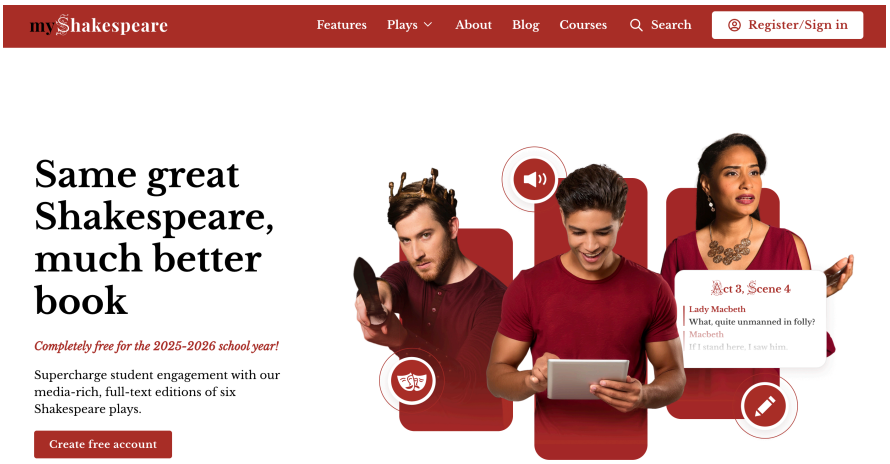


- While analytical functions would vary between poems, the prototype will focus on three recurring areas relevant to Welsh poetry:[11]
    - Literary interpretation
    - Historical context
    - Translation

[11] K. Haylock, Counselling the Princes: Advice and Counsel in the Thirteenth Century, *History*, (London, 2009), pp. 32-35.

Example:

mySHakespeare:



myShakespeare[12] offers the strongest model for the analytical functions intended for WPTAT. As Shakespeare remains widely studied at A- level and university, the platform demonstrates how digital tools can support close textual analysis in an accessible and interactive way.



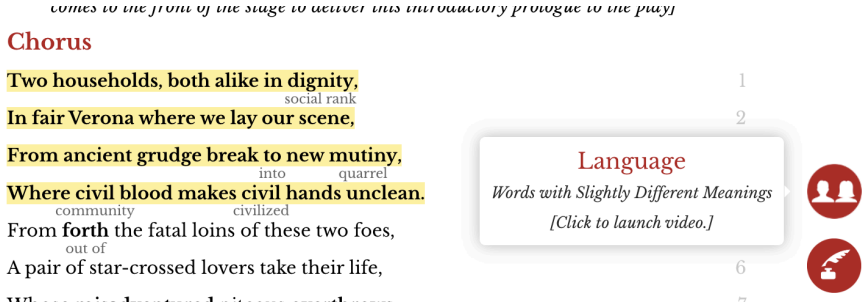
Fig.10: Analysis icons page of Romeo & Juliet from *myShakespeare*

- Examples of Analysis: The *Romeo & Juliet*[13] page particularly influences the proposed structure of WPTAT because it divides interpretation into multiple analytical categories, which are represented through graphical icons.
- These include:

[12] myShakespeare, *Homepage*.
[13] myShakespeare, *Romeo & Juliet prologue*, myshakespeare.com/romeo-and-juliet/act-1-prologue [Accessed 31st March 2026].

- Audio performances
- Modern language translations
- Literary commentary
- Links to further reading

- Presentation: Analysis options are represented through graphical icons.
- This layered approach allows users to engage with texts from different perspectives simultaneously.
- All of which offer a more interactive and engaging way of learning rather than offering a single static block of text.

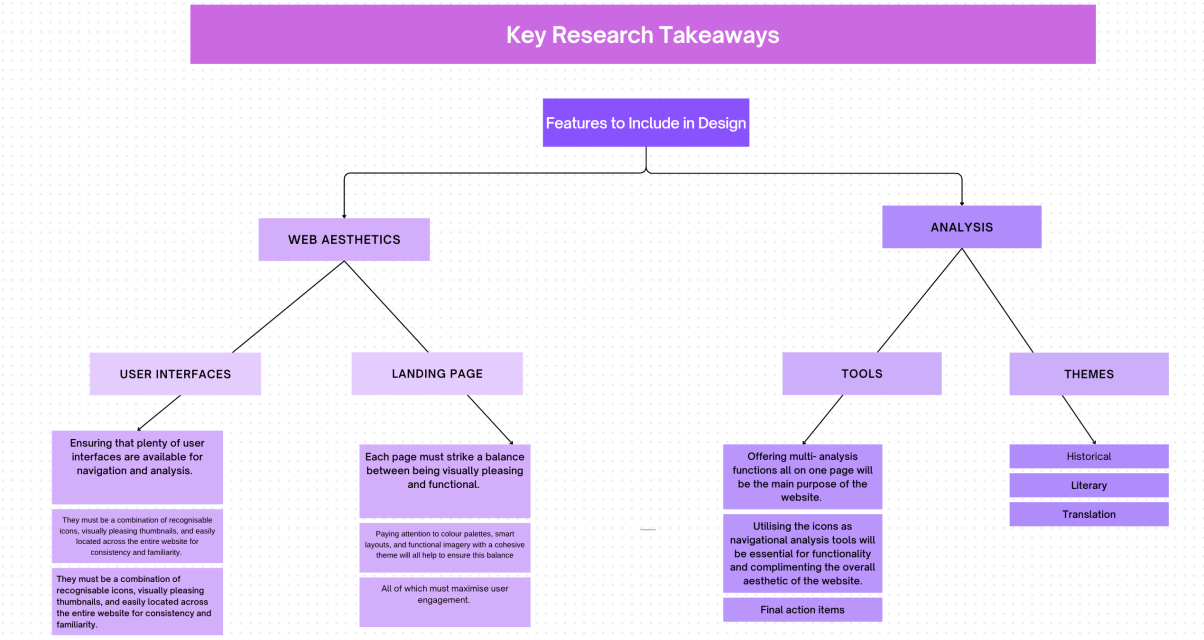


- Highlighting: a particularly effective feature is the highlighting of specific lines once an analytical category is selected.
- Key phrases are emphasised visually, followed by concise commentary explaining symbolism, inference, or contextual meaning.
- Hyperlinks to external videos and secondary sources also extends the opportunities for independent learning and research.

Therefore, *myShakespeare* demonstrates how WPTAT could combine accessibility with detailed literary analysis through interactive and multi- layered learning tools.

Research Reflection

To summarise the key takeaways from the above research, the following overview identifies the key features that will be included in the design process going forward:

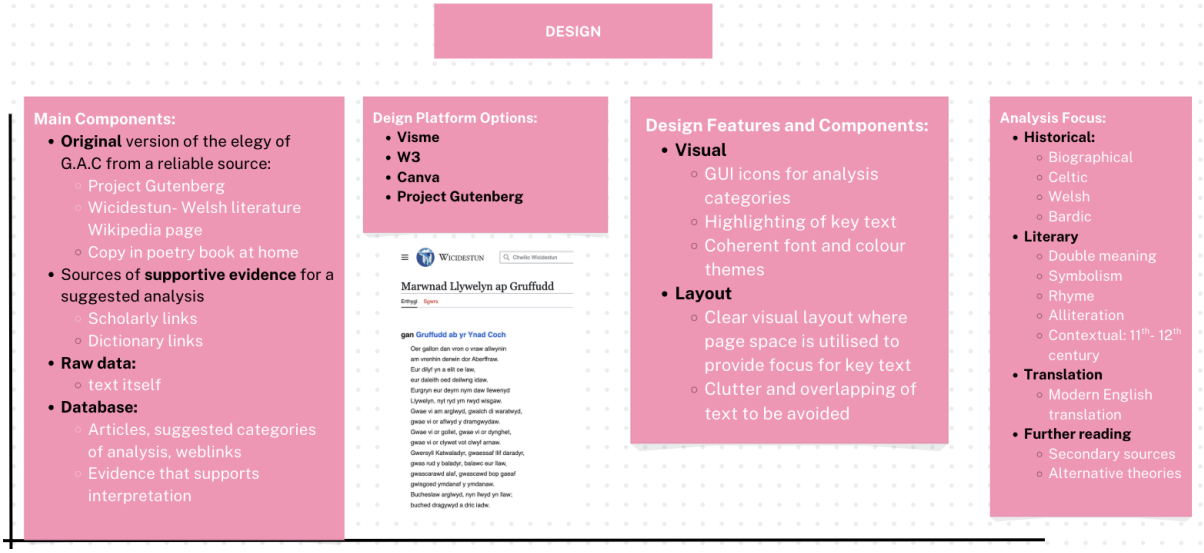


Web Aesthetics and Text Analysis:

1. Visual elements such as images, typography, and colour palettes need to compliment both content and navigation.
2. Navigational tools, including user interfaces such as menus and search functions, should remain clearly visible by following a familiar design convention as a method of improving the usability and orientation of a website.
3. Consistency needs to be seen across all pages to maintain this sense of familiarity and ease of use.
4. Layout need to be visually striking whilst remain balanced through effective spacing and cohesive design in order to ensure that each feature compliments the other without competing for attention.
5. Analysis tools need to be visually interactive and practical tools.
6. Welsh poetry requires historical context, literary, and translative analytical functions.

Therefore, this research has provided a clear framework and analytical model to guide the design process of a WPTAP to become an engaging and academically supportive digital tool.

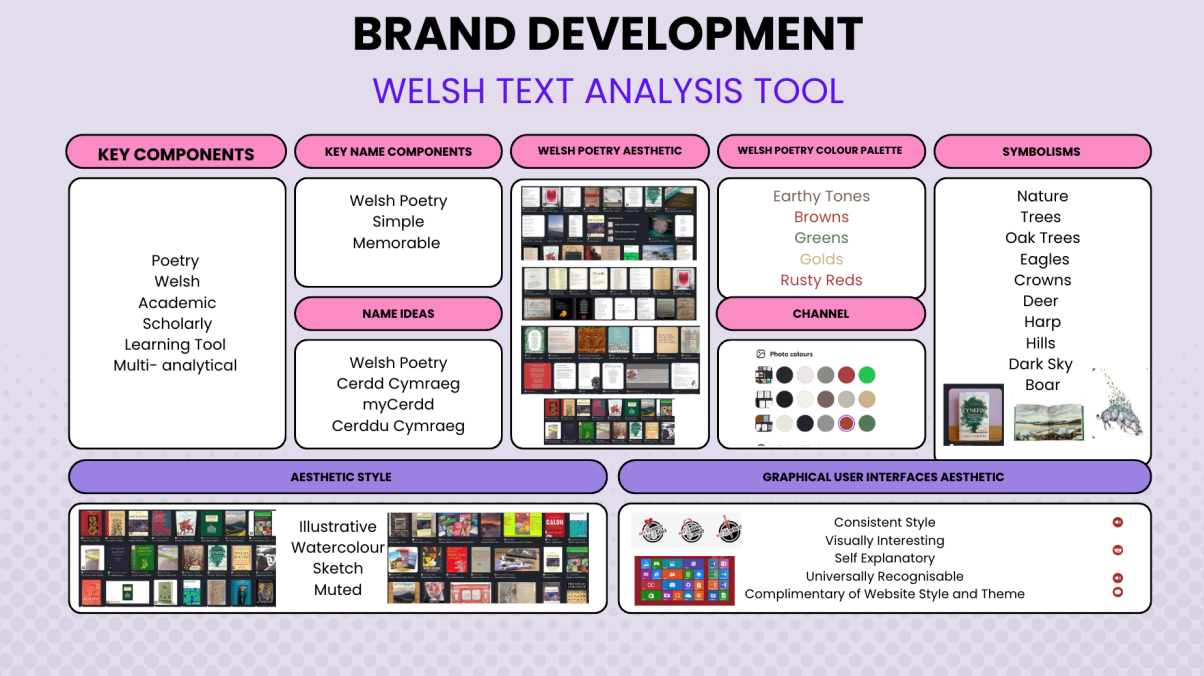
Design



Websites are often perceived as 'higher order' when information is organised through clear and logical layouts that distinguish related and unrelated elements.[14] Conversely, research also suggests that users judge a website's visual appeal and functionality within 50ms of exposure.[15] Therefore, the proposed WPTAT needs to combine multiple analytical functions within a visually coherent and accessible interface that could sustain engagement whilst remaining academically focused.

This section explains how the research informs the design process, particularly through using *Marwnad Llywelyn* as the main case study for demonstrating the website's analytical potential. It also reflects on the practical considerations involved in selecting suitable software for prototype development.

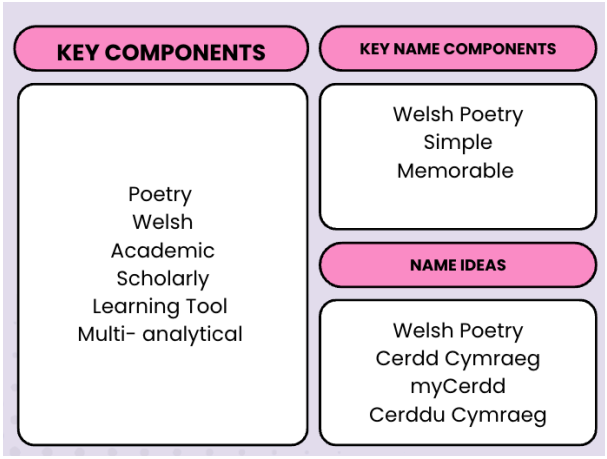
[14] L.Dung, M.S.Poole., Aesthetic design of -commerce webpages, pp.420-440.
[15] Q.Dou, S.Zheng, T.Sun, P.A.Heng., Webthetics: Quantifying webpages aesthetics with deep learning, *International Journal of Human Computer Studies,* 124, (Beijing Normal University, 2019), pp.56-66.



Website Name

Brand naming is an important aspect of digital identity[16] because names influence recognition, memorability, and audience expectations,[17] including trustworthiness and other positive attributes.[18] Research also suggests that wording, typography, and structure all contribute to how users perceive a brand and its purpose. [19] This is because brand names are known to "influence consumer evaluations by conveying information regarding the brand identity".

[16] K. Masur, P. Khamitov., Possessive brand names in brand preferences and choice: the role of inferred control, *Journal of the Academy of Marketing Science,* (2022), pp. 1032-1051, https://doi.org/10.1057/s41262-020-00201-x [Accessed on 5th May 2026].
[17] K. Selcan, G. Kunter, R.T. William., My brand identity lies in the brand name: personified suggestive brand names, *Journal of Brand Management*, (2002), pp. 607- 621, https://doi.org/10.1057/s41262-020-00201-x [Accessed on 5th May 2026].
[18] K. Selcan *et al.*, My brand identity, p. 607.
[19] Ibid., p.607



Therefore, for a WPTAT, the chosen name needs to communicate several key themes simultaneously:

- Welsh identity
- Poetry and literary study
- Academic credibility
- Accessibility for students
- Exploration and analysis

The choice needs to be catchy, simple and memorable whilst embodying the key components. Therefore, the following suggestions are most likely:

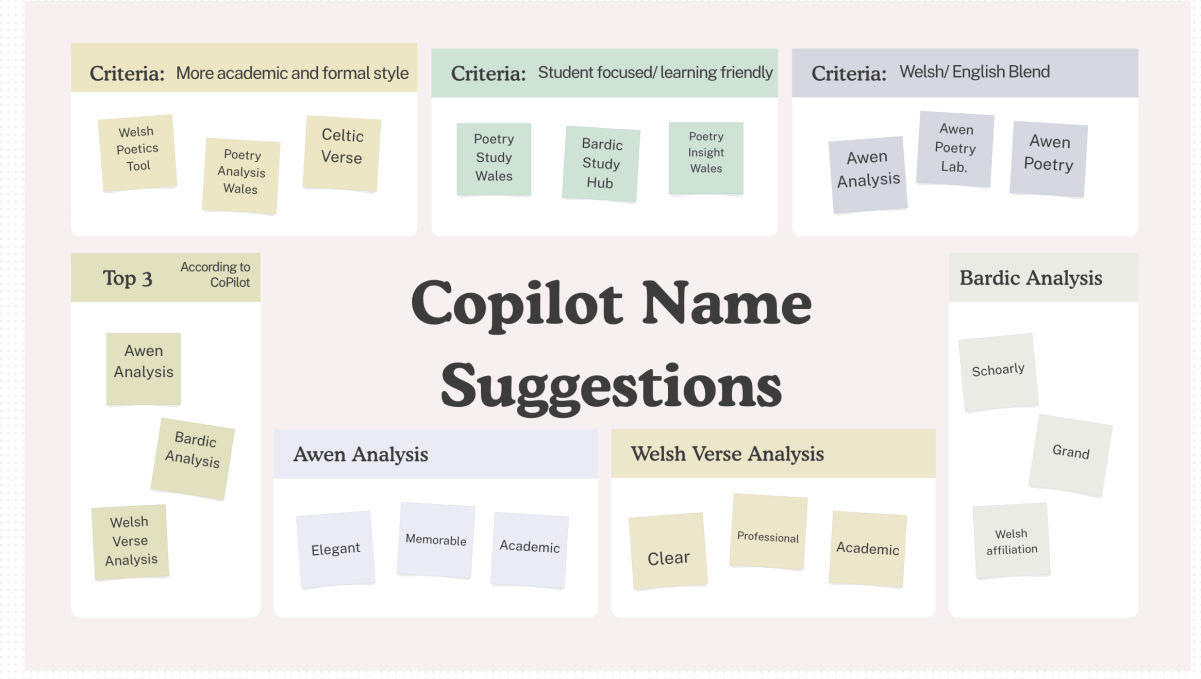
- Welsh Poetry Vs Cerdd Cymraeg:
  - The two- word name is simple and encompasses precisely what the website offers.
  - Though the Welsh equivalent (Cerdd Cymraeg) has the alliterative element, sadly standard English is more universally known and spoken and therefore, the English name of *Welsh Poetry* would be more memorable and recognisable to a wider audience.
  - However, the two could be included on the main home page to ensure that Welsh is being promoted and encouraged.
- myCerdd: This is of course copying the idea from *myShakespeare*. Though it is simple and gives a modern and 'student feel' to the name, plagiarism may be an issue. Also, directly copying another brand could undermine the worth of this brand.

- **Copilot:**

For research purposes, putting the following criteria into *CoPilot* helped to brainstorm further ideas:

- No more than 3 words
- Welsh themed with an English focus
- Memorable and simple
- Scholarly/ Academic
- Student targeted

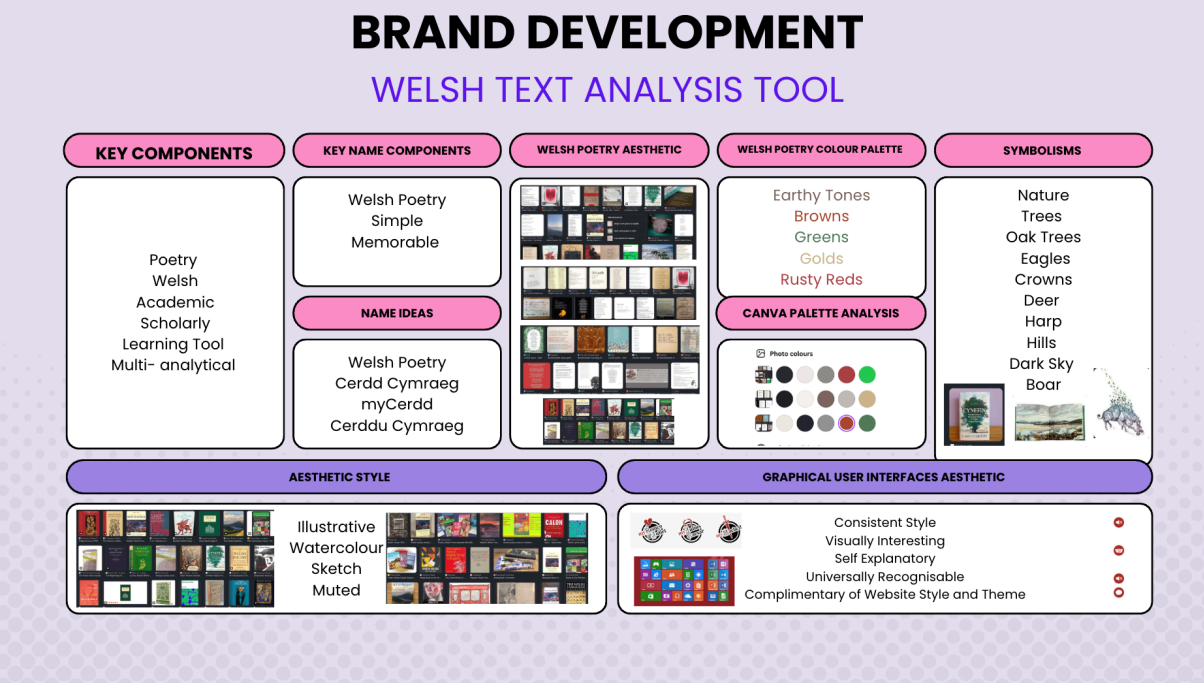
With these criteria, the following suggestions were generated:



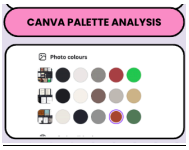
Whilst the Welsh language titles carried a strong cultural association, English titles were considered more universally accessible for a wider student audience. Therefore, with all these ideas in mind, the final choice is **Welsh Poetry Lab**. The reasoning is as follows:

- Clear communication of the website's purpose whilst remaining concise and memorable
- The word 'lab' suggests exploration and discovery, which brings in a learning, which aligns with the educational aim of the project

Website Aesthetic



The aesthetic research carried out of the current overall aesthetic of Welsh poetry helped to create a *Canva* mood board as a method of developing a consistently visual identity for *Welsh Poetry Lab* whilst ensuring that it fits within this genre.

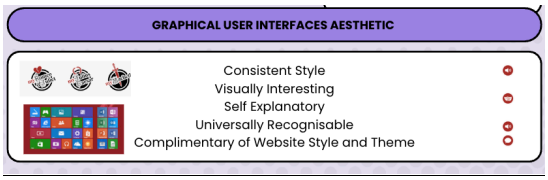


- Colour Themes: Welsh poetry imagery has a preference for earthy and muted colour palettes, particularly the following, as identified by *Canva*:
    - Greens
    - Browns
    - Rusty reds
    - These colours are perhaps chosen to reflect their melancholic and nature- driven themes within their content.



- Symbolism and Style: Book cover analysis highlights the frequent use of illustrative and nature- inspired artwork, rather than photography.

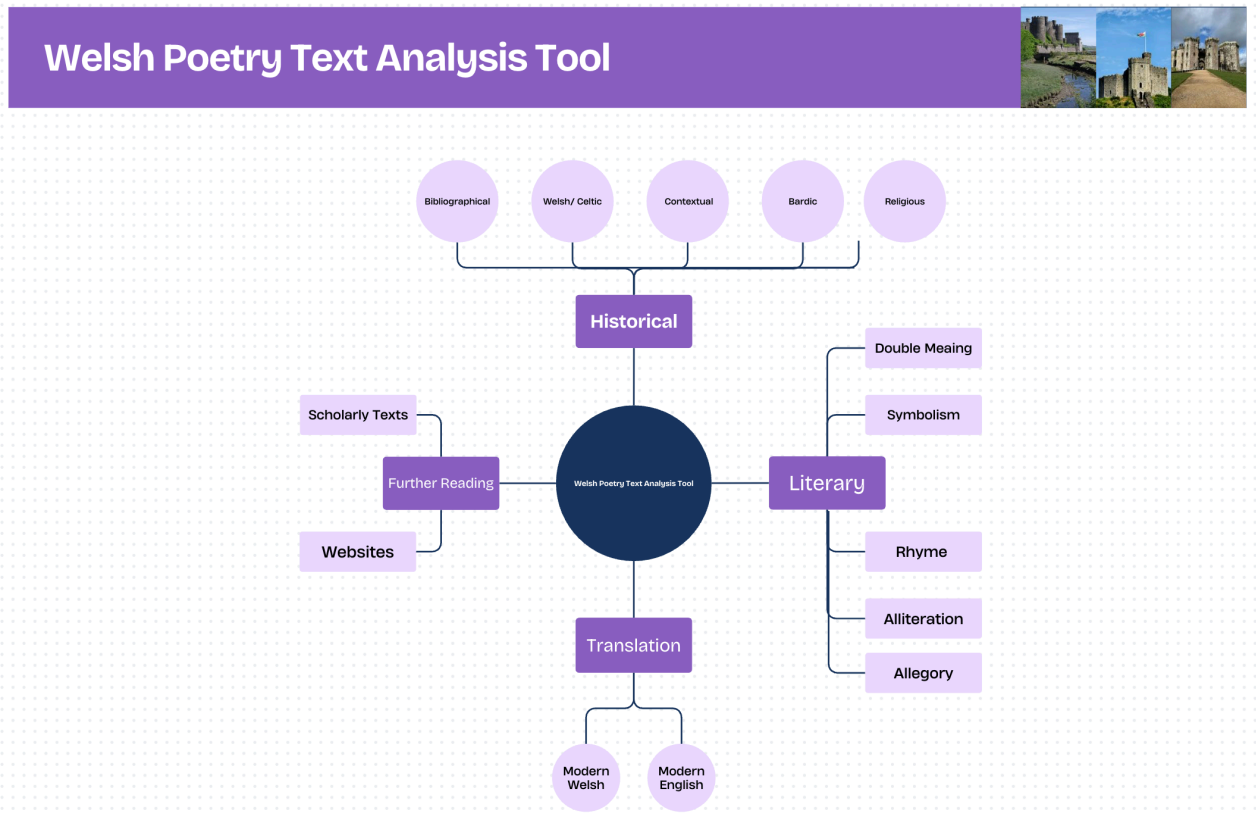
- The prototype will therefore, adopt a similar visual style using symbolic imagery such as:
    - Leaves
    - Trees
    - Animals
    - Landscapes



- User Interfaces: The research into websites such as *myShakespeare* demonstrates the importance of maintaining stylistic consistency between:
    - Icons
    - Navigational tools
    - Page layout
- Icons and user interfaces for *Welsh Poetry Lab* will be designed to follow the same muted colour palette and illustrative aesthetic to match the wider market.

Text Analysis Tools

The analytical functions of the website are informed, primarily through research into *myShakespeare* and wider studies into the analytical themes of Welsh poetry. Though a brief outline of overarching themes has been discussed, looking deeper into the nuanced sub- categories of analysis seems a prudent method of ensuring that a rich analytical resource is made available for both teachers and students. Therefore, research indicates that the following themes of analysis should be made available to the website users, both as a whole and for specific poems such as *Marwnad Llywelyn*:



- Historical: For *Marwnad*, the following sub- categories of historical analysis should be offered:
    - **Bibliographical:** e.g. context of how the life of Gruffudd ab Yr Ynad Coch influenced his writing.
    - **Celtic/ Welsh:** e.g. strong symbolism is used to elegise Llywelyn ap Gruffudd.
    - **Contextual:** e.g. how the poem fits into the broader context of 12th century Wales's history.
    - **Bardic:** e.g. traditions and techniques such as cynghanedd that require their own historical context.

    - **Religious:** e.g. Christian influence over the poet's life and choice of literary symbolism to reflect the poem's complexity.

- Literary: *Welsh Poetry Lab* will focus on explaining poetic techniques and deeper layers of meaning, including:
    - **Double Meaning:** identifying multi- layered inference.
    - **Symbolism and Allegory:** personification and other forms of symbolism that are regularly used.
    - **Rhyme:** commentary on the craftmanship of cynghanedd and a commentary on its craftmanship and mechanics.
    - **Alliteration:** use of alliteration to convey deeper connections and word-specific focus.

- Translation: Because medieval Welsh differs significantly from modern Welsh, translation features would also be essential. Therefore, *Welsh Poetry Lab* would offer the following translations:
    - **Modern Welsh:** Using a well- respected and well- recognised publication of the original poem should be used as the 'primary source'.
    - **Modern English:** for non- native Welsh speakers, having a modern English translation would make the poem universally and equivocally available to all users.

- Bibliography: Displaying To support academic credibility, the website would also include hyperlinks to:
    - **Academic material:** e.g. journals, textbooks, dictionaries
    - **Credible websites:** e.g. newspapers, institutions
- To avoid overcrowding on the poetry pages, these materials would be stored ona dedicated bibliography page that was formatted using the MHRA referencing conventions.

Web Development Platforms

Selecting suitable software to create *Welsh Lab Poetry* is one of the most significant practical considerations that needs to be made during the design stage. Consequently, several platforms were explored before the development began:

Examples:

Drupal

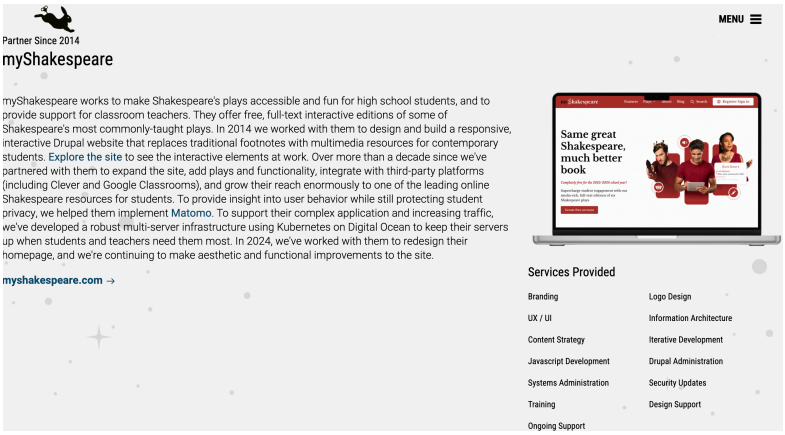


Fig.12: Overview provided by *Giant Rabbit* in regard to the design of the website, *myShakespeare*

Research into *myShakespeare* revealed that the website was developed using *Drupal* [20]alongside professional development support.

- Advantages:
- *Drupal* offers a free version of their software for webpage development.
- Limitations:
- However, replicating such a sophisticated website single- handedly as a novice programmer is unrealistic within the project's timeframe.

[20] Giant Rabbit, *myShakespeare*, https://giantrabbit.com/clients/myshakespeare [Accessed 18th April 2026].

W3 Schools

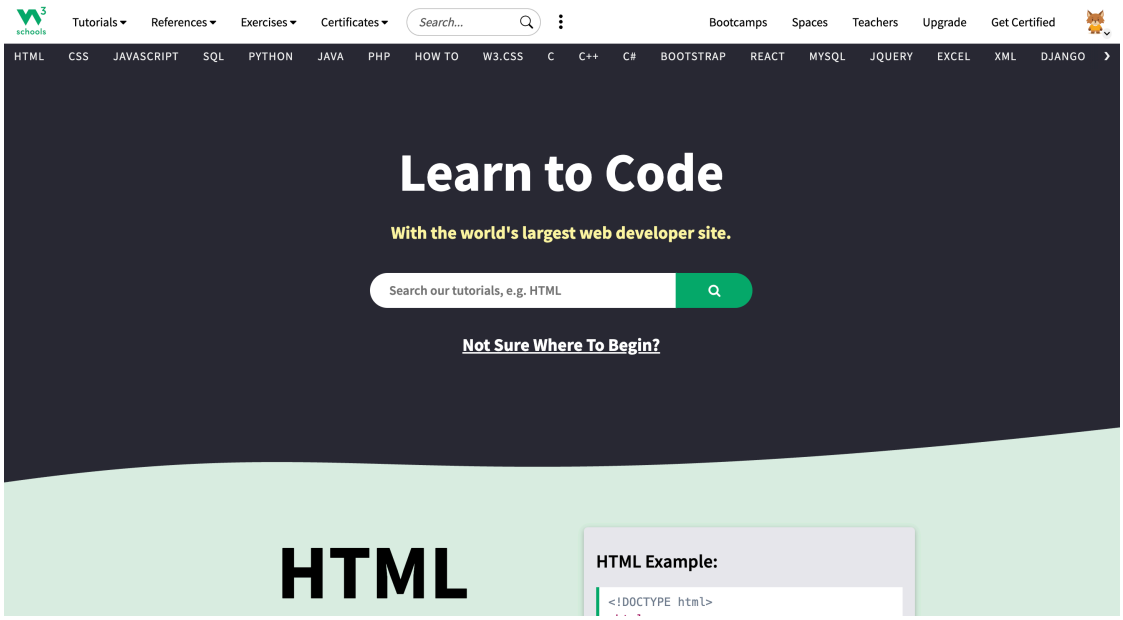


Fig.13: *W3Schools* Homepage

W3Schools[21] provides tutorials and coding spaces for HTML, CSS, and JavaScript experimentation and skill development.

- Advantages:

- The site provides a platform to build and develop a bespoke website.
- A free trial is available for seven days.
- Tutorials and coding practice exercises are available and are included in the free trial.

- Limitations:

- The free trial is time- restricted to seven days, which puts pressure on production within the limited timeframe.
- Because of this deadline, additional pressure is placed on quick familiarisation of coding to speed along expertise in order to create a fully functional WPTAT.

[21] W3Schools, https://www.w3schools.com/ [Accessed 18th April 2026].

Canva

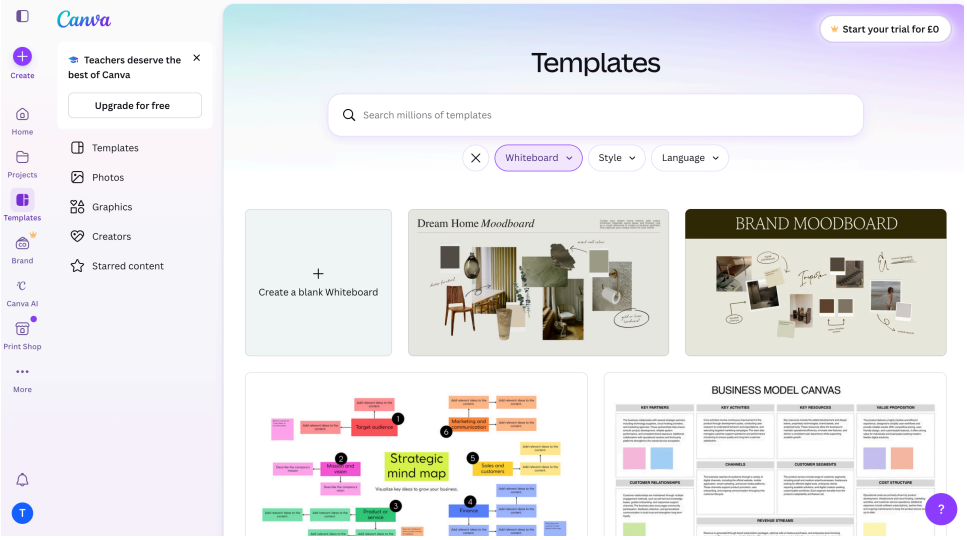


Fig.14: *Canva* homepage

Canva[22] is a graphic design platform that is user- friendly, allowing all users an opportunity to create professional looking digital platforms.

- Advantages:

- *Canva* offers a free subscription whilst still providing users a good range of templates, fonts, and other graphics.
- The platform is user- friendly and therefore, no coding experience is required to use its services.
- It is a familiar site, which could create a faster workflow for producing a good example of a prototype.

- Limitations:

- Despite a wide range of templates, there is not a specific option for specific text analysis and therefore, creating a good example will still be challenged by the timeframe.
- Accessing all the available assets requires a premium subscription.

Therefore, reflecting on the options available for developing a prototype, the best candidates for creating a website are as follows:

[22] Canva, https://www.canva.com/ [Accessed 1st May 2026].

- **W3:** Despite these challenges, *W3* still remains a viable option for testing initial ideas and understanding the structure of web design.

- **Canva:** if *W3* does not go as planned, creating a prototype using *Canva* is still a viable option because although it might not create a fully operational WPTAT, it could successfully allow the creation of a visually coherent prototype that showcases aesthetic and function.

Data and Databases

Considering how poetic material and secondary sources would be stored is another important stage of the design process.

- **Raw Data:**

The main data source will be the poems themselves. Ideally, if this project was to be produced beyond being a concept, *Welsh Poetry Lab* would use credited editions and permissions from publishers to avoid copyright issues. However, for the prototype, freely accessible online versions is more practical, especially as only *Marwnad Llywelyn* is being used for the analysis demonstration.

Project Gutenberg

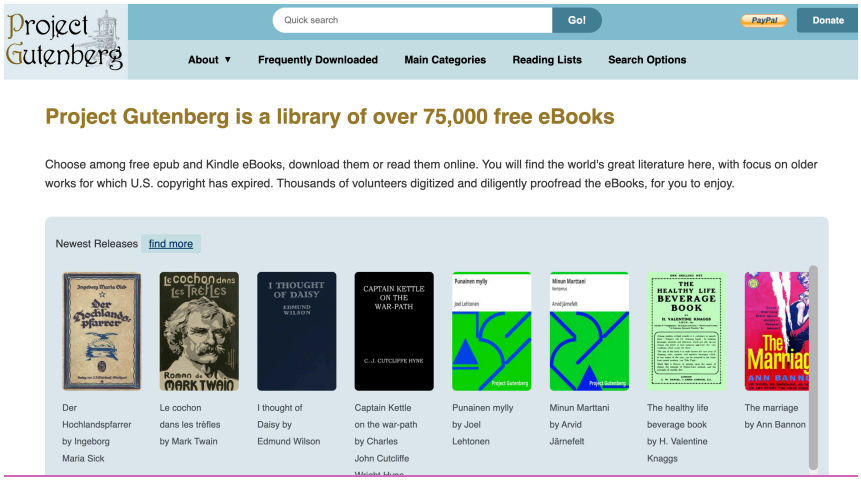


Fig.15: *Project Gutenberg* homepage

Project Gutenberg[23] offers access to free eBooks where the U.S. copyright laws have expired.

- Advantages: the website appears useful because of its large archive of public-domain texts.
- A range of Welsh poetry and literature is available for free.
- Limitations: Locating specific Welsh poems proved difficult because searchability within the eBooks is not available.

Therefore, using an online version of *Marwnad Llywelyn* as a method of simply showcasing the functions of the website would be more practical. For example, using *Wicidestun* (the Welsh version of *Wikipedia*) will be a reasonable alternative for the purposes of this prototype.

Wicidestun

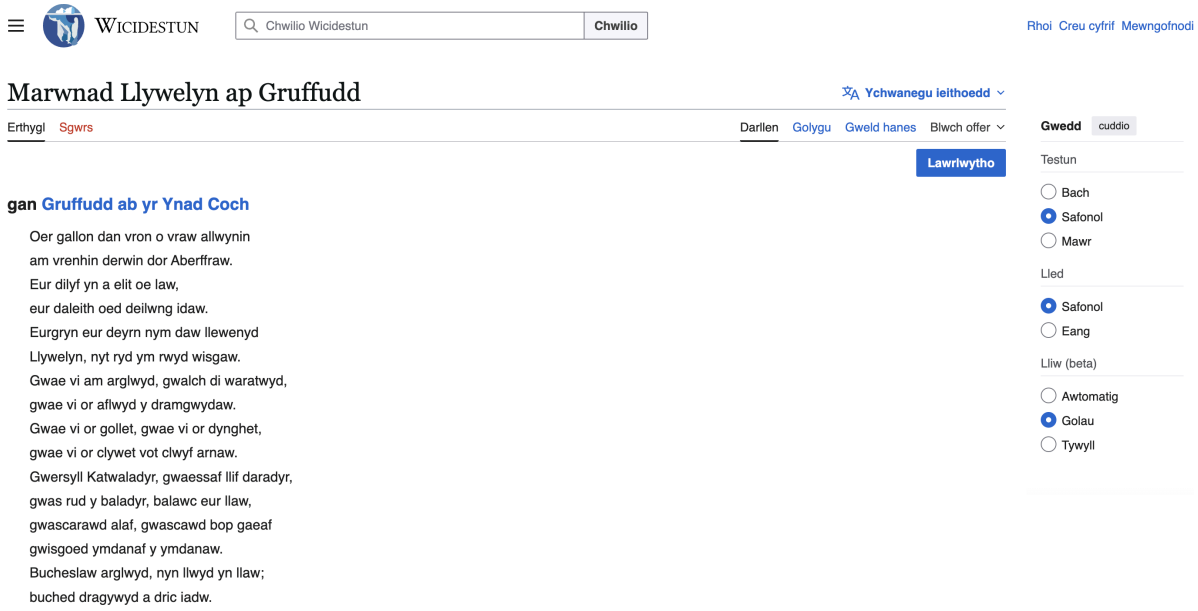


Fig.16: *Wicidestun* version of *Marwnad Llywelyn*

- Advantages: This *Marwnad Llywelyn*[24] is free and readily available to access.

[23] Project Gutenberg, projectgutenberg.org [Accessed 9th May 2026].
[24] Wicidestun, *Marwnad Llywelyn,* cy.wikisource./org/wiki/Marwnad_Llywelyn_ap_Gruffudd [Accessed 2nd May 2026].

- Having an online resource enables a ‘copy and paste’ method of transferring the poem to *Welsh Poetry Lab*.
- The original spelling could add an extra opportunity to showcase the analysis features offered by the website.

- Limitations: The absence of referencing brings credibility of this version into question.

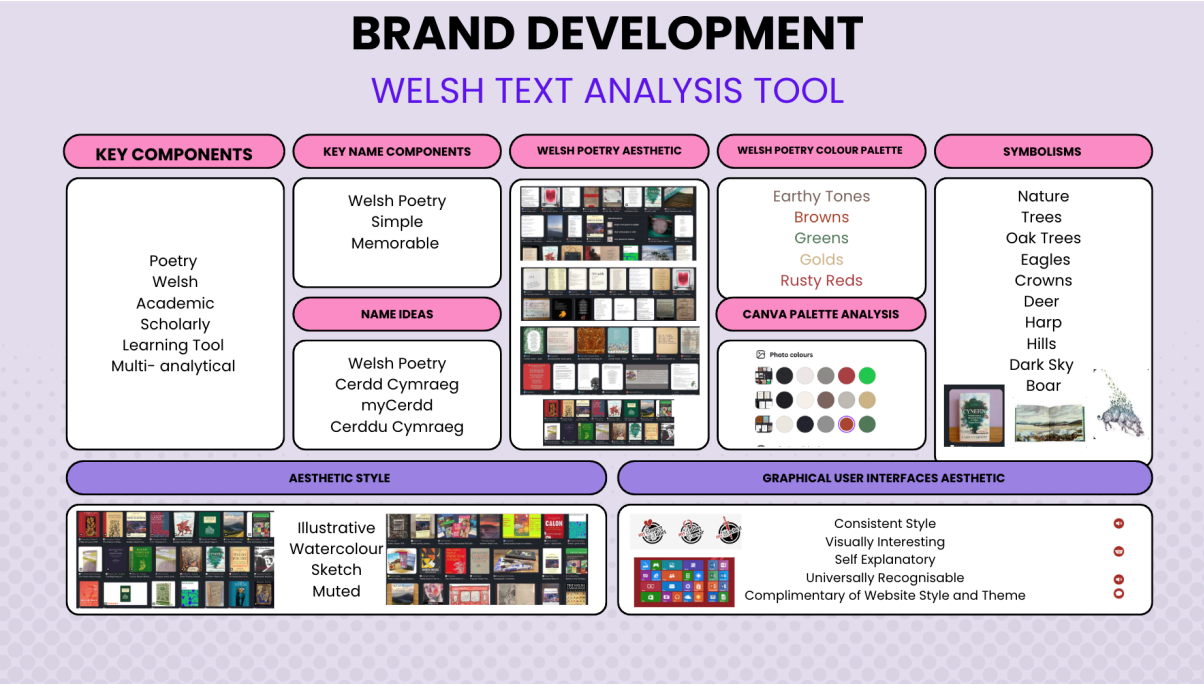
- **Database:**

Welsh Poetry Lab will also function as a secondary source database. Links to the following academic material will be made available:

- Academic articles
- Journals
- Translations
- Verified websites
- Literary material

This reference material would be stored through hyperlinks and a separate bibliographic webpage to support further research opportunities, both for students and teachers.

Summary and Next Steps



Mapping the website's design helped to refine the following:

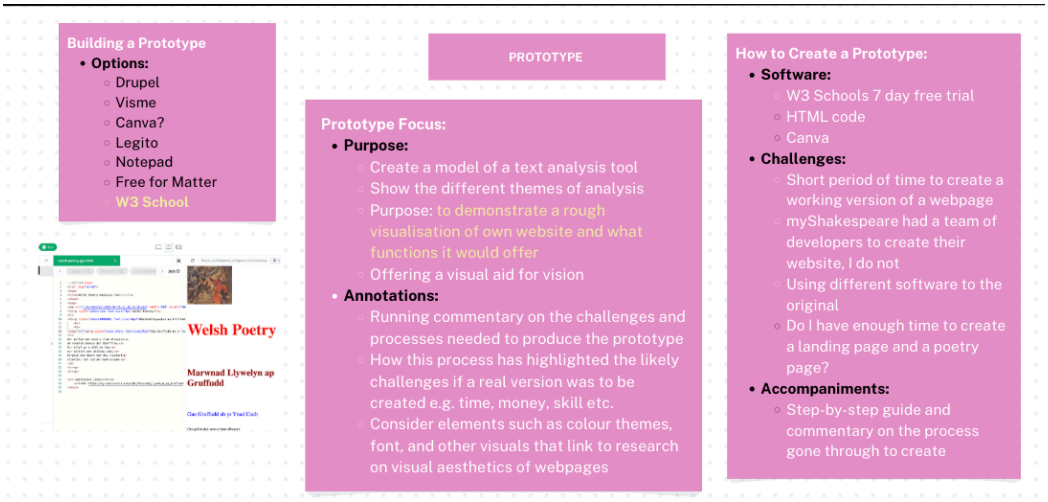
- Identity
- Analytical focus
- Development process

The research established a clear direction for *Welsh Poetry Lab's* educational purpose. Therefore, the key outcomes include:

- An earthy, nature- inspired aesthetic that is consistent within the genre of Welsh poetry
- Multiple analytical categories that are supported by external resources
- *Marwnad Llywelyn* to be used as the primary demonstration
- *W3* as the initial development platform with *Canva* serving as a secondary option

These decisions have created a clearer framework for moving forward into the prototype stage of development.

Prototype



This stage aims to create a conceptual prototype of *Welsh Poetry Lab* to demonstrate how a WPTAT might function in practice. The process combines:

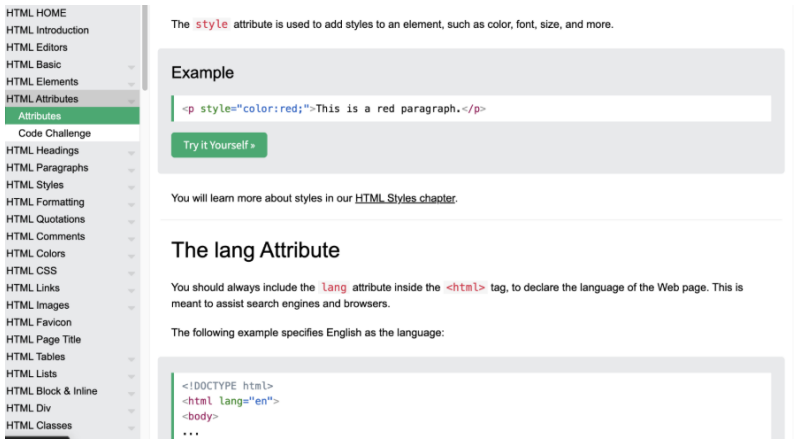
- Experimentation
- Reflection

- Interactive development
- Documenting both the success and limitations throughout

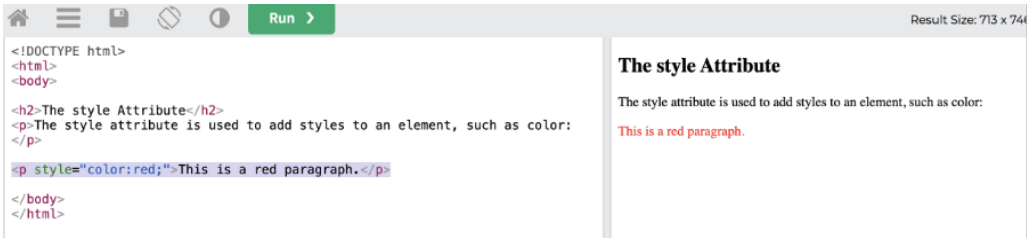
Initial Prototype Stages

W3Schools

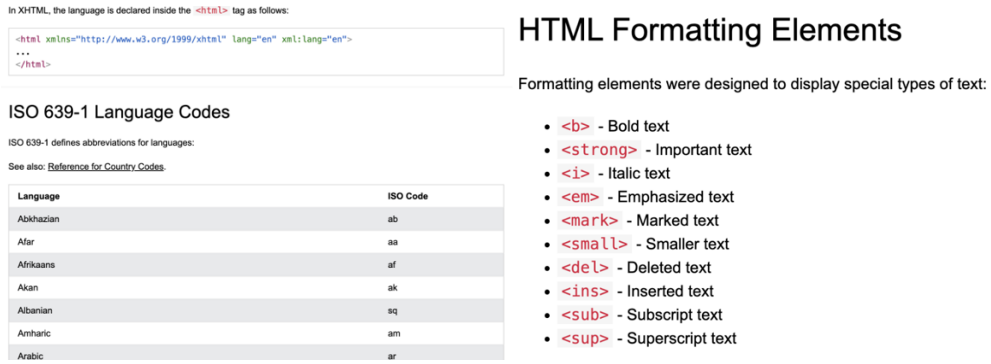
1. Familiarisation:



- The first stage involved becoming familiar with *W3Schools* and refreshing existing HTML knowledge:
  - Tutorials were offered and completed sequentially and tested before being applied to the prototype.



  - Particular attention was given to formatting:
    - Commands
    - Language declarations
    - Fonts
    - Colours
    - Sizing options



In XHTML, the language is declared inside the <html> tag as follows:

```
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
...
</html>
```

ISO 639-1 Language Codes

ISO 639-1 defines abbreviations for languages:

See also: Reference for Country Codes.

Language	ISO Code
Abkhazian	ab
Afar	aa
Afrikaans	af
Akan	ak
Albanian	sq
Amharic	am
Arabic	ar

HTML Formatting Elements

Formatting elements were designed to display special types of text:

- <b> - Bold text
- - Important text
- <i> - Italic text
- - Emphasized text
- <mark> - Marked text
- <small> - Smaller text
- <del> - Deleted text
- <ins> - Inserted text
- <sub> - Subscript text
- <sup> - Superscript text

- *W3* offered abbreviations and ISO codes for various elements such as:
    - Language
    - Colour
    - Font
    - Font size

- Challenges:
    - Remembering the structure of HTML commands and formatting syntax required considerable revision, particularly the use of attributes such as *style*= to control appearance.

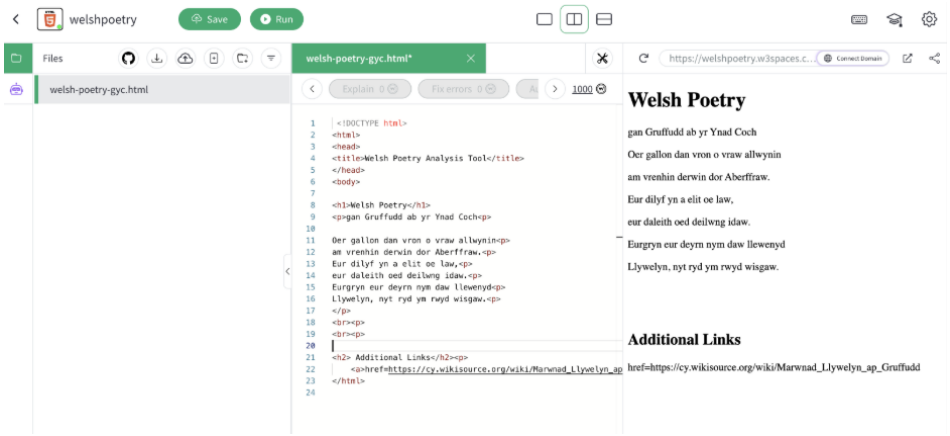
2. Initial Development:

```
<!DOCTYPE html>
<html lang="en-GB">
<head>
<title>Welsh Poetry Analysis Tool</title>
</head>
<body>
<img src="./Screenshot_2026-04-19_at_10.34.39.png" width="200"
<h1><p style="color:red;">Welsh Poetry</h1>
<br>
<lang="cy"><p><p style="color:blue;">gan Gruffudd ab yr Ynad C
<br>
Oer gallon dan vron o vraw allwynin<p>
am vrenhin derwin dor Aberffraw.<p>
```

- Basic website elements were then implemented, including:
    - Website title
    - Main heading
    - Fonts and Colours
    - Subheadings
    - The language was declared as Welsh *(cy)* to improve the consistency between content and system settings.

- Challenges:
  - Formatting text and controlling line breaks proved difficult. Understanding when commands required closing tags and how different formatting elements interact with one another was a difficult skill to master.

3. Expanding Content and Formatting:



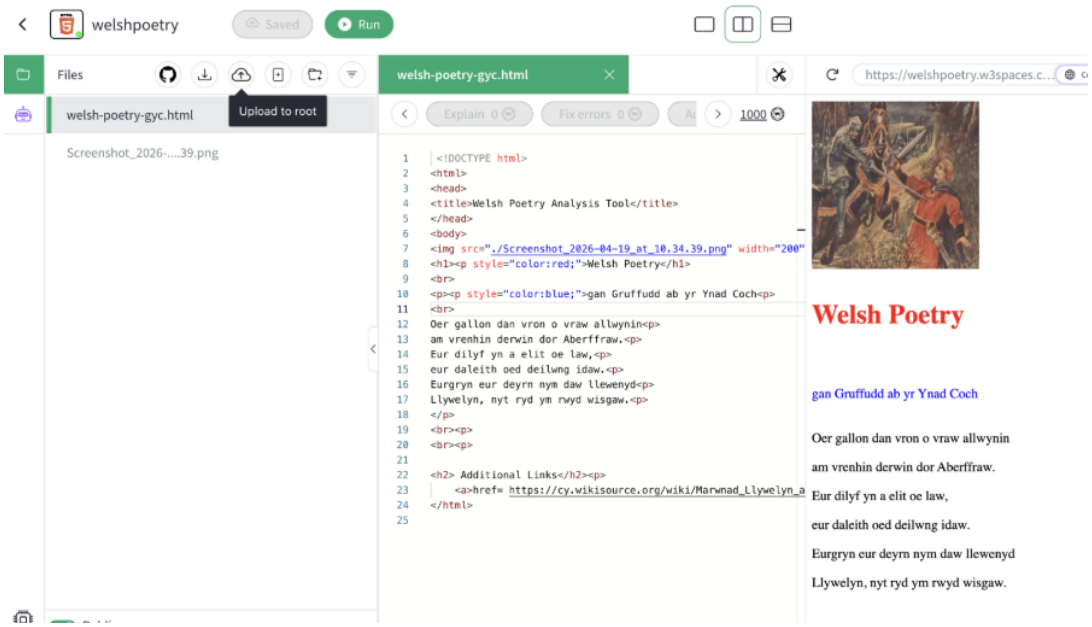
- The poem was embedded into the page and additional formatting was introduced to improve readability.
  - The following aesthetical components were amended:
    - Font size
    - Colours
    - Spacing
    - Backgrounds



- These were adjusted to create a visual hierarchy between headings and the body of text.
- Bright colours were initially used to test formatting commands before more refined design choices were considered.

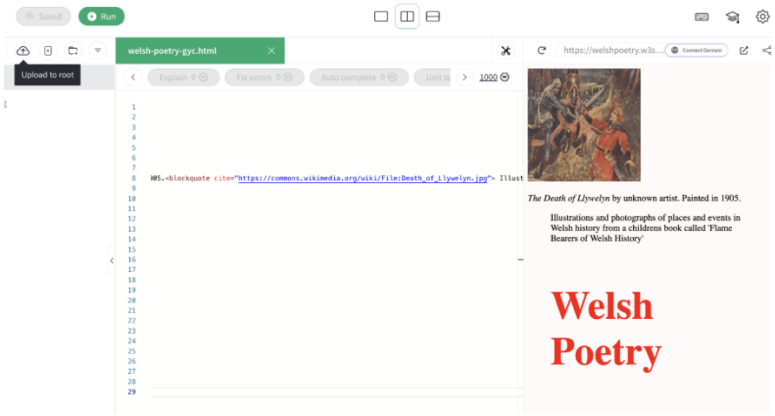
- Challenge:
  - The following areas of formatting became increasingly time consuming:
    - Applying colours to specific sections of text
    - Identifying missing tags
    - Combining formatting commands
  - Although basic formatting was overall successful, achieving a professional appearance proved more challenging than anticipated.

4. Images:

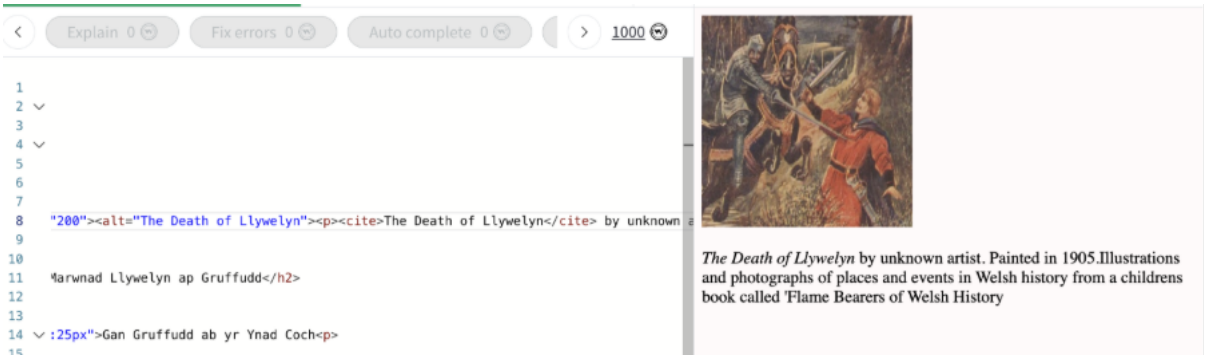


- Artwork depicting the death of Llywelyn ap Gruffudd was added to support the poem's historical context and introduce visual interest.
  - The image selected reflected the melancholic ambience of the poem through its muted and illustrative aesthetic.
  - Image dimensions were controlled through HTML commands of *width* and *height* and added to the specific lines of code to ensure specific placement.

- The image address was embedded into the code as a method of building the database of external materials .



- Challenges:
  - Positioning images, captions, and icons without disrupting the surrounding layout required repeated adjustments.



5. Icon Development:



- An icon was added to simulate a text analysis icon.

- Inspired by *myShakespeare*, a quill icon was added to represent a literary analysis.

- A quill icon, inspired by *myShakespeare*, was selected because of a quill's widely recognisable symbolism associated with antiquitous literary study.
- To create an impression of an icon, the image was resized to align with the text on the right hand side. format the image to look like an icon, the image was made as small as possible and aligned with the text on the right-hand side.

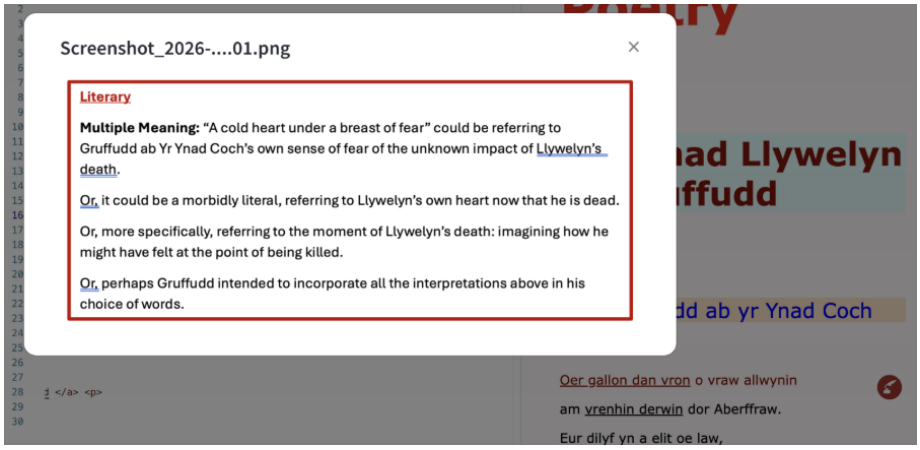
- Challenges:
  - Positioning the icon without disrupting the surrounding layout required repeated adjustments.
  - Aligning icons alongside the poem was particularly difficult and often affected line spacing.
  - without disrupting the spacing and alignment of the poem proved difficult.
  - Using intellectual property of *my Shakespeare* would be inappropriate due to copyright considerations; however for the purposes of this concept, it provided a practical solution within the limited timeframe.

6. Simulating Analysis Features:



- To simulate interactive analysis tools, features of aesthetic decisions were combined with functionality.
  - Selected words were highlighted and colour- coded to match the literary analysis icon.
    - Muted rusty red was selected to complement the wider earthy aesthetic.
  - This created a visual connection between the interfaces and analytical category.

- Underlining was used to suggest hyperlinks, whilst a sticky- note- style commentary box was created to represent a pop= up analytical feature.



- Because a fully interactive system was beyond my coding experience, screenshots and static images were used to create a stop- motion simulation of how the final website might function.[25]

- Challenges:
  - Creating interactive features using CSS and JavaScript exceeded my level of expertise resulting in the sticky- note being created separately in *Microsoft Word* before saving and uploading to *W3* as an image.
  - Certain formatting issues, such as changing the colour of individual words without affecting the entire line, remained an unresolved issue.

Reflection

W3Schools provided valuable insight into the process of building a website from scratch and helping to develop a greater understanding of the HTML structure and website design. However, the combination of limited coding experience, restricted free access, and the complexity of creating interactive analytical tools meant that a fully functioning prototype was unrealistic within the available timeframe.

Consequently, switching to *Canva* will offer a more practical route for creating a comprehensive and visually pleasing prototype.

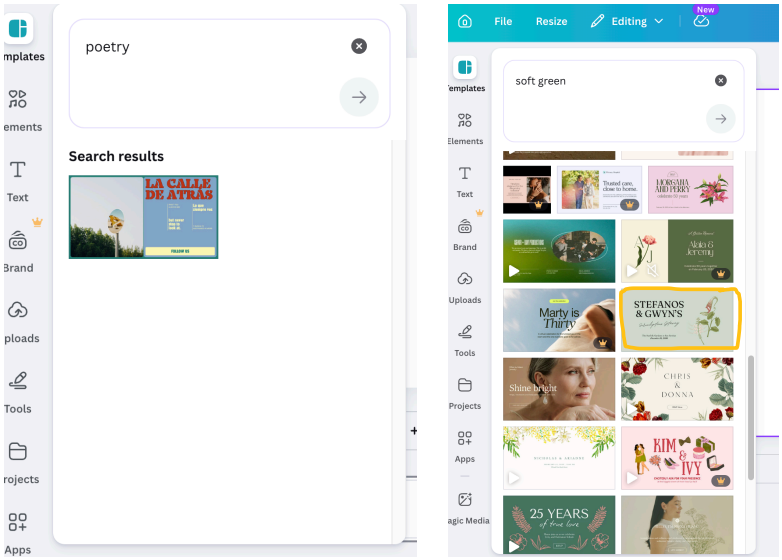
[25] R. M. Andrews, The Nomenclature of Kingship in Welsh Court Poetry 1100-1300 Part I: The Terms, *Studia Celtica*, 44, (University of Wales Press, 2010), 79–109

Final Development Stage

Canva

Unlike coding- based platforms, *Canva* provides website templates and design tools that allow the prototype to be developed without programming knowledge. Given the remaining timeframe, *Canva* offered a more realistic method of completing a demonstration of, both the analytical and aesthetic aims of, *Welsh Poetry Labs*.

1. Template:

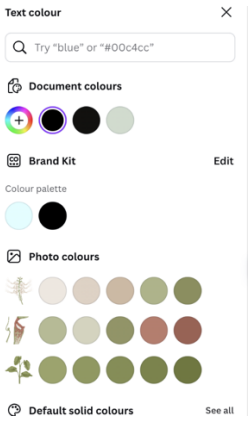


- The first stage involved selecting a suitable template.
  - Though searches for poetry- specific design templates were limited, broader searches using terms such as “soft green” revealed a greater selection of layouts that better reflected the desired aesthetic.
  - A template featuring a muted palette and watercolour- style illustrations was selected (circled in yellow) because it aligned closely with the visual identity that was identified during the research stage.

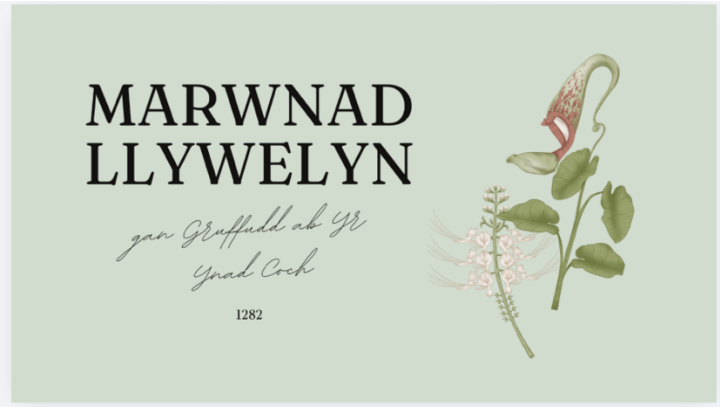
- Challenge:

- Although the free version provided sufficient options, the main limitation was restricted access to premium templates.

2. Thumbnail Development:



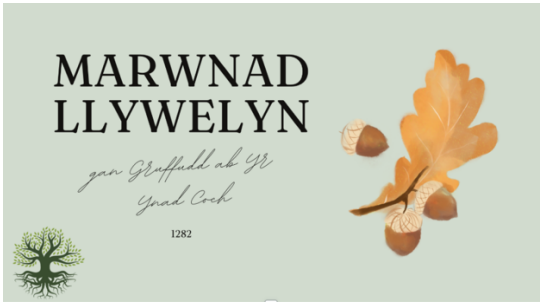
- A thumbnail page for *Marwnad Llywelyn* was created to test colour schemes, typography, and imagery.
  - Colour Theme:
  - *Canva's* automatic palette extraction generated a muted sage- green colour scheme from the embedded artwork, which reflected the melancholic atmosphere of the poem.
  - This became the foundation of the wider website aesthetic.



  - Fonts:
  - Large uppercase typography was used for the title, while cursive font for the author's name was selected to create an impression of a signature.

- Layout:
- Maintaining a clean and balanced layout was essential, ensuring that individual features complemented one another without competing for attention.
- The poem's date also helped frame the composition while reinforcing the historical context of the text.

- Images:
- Oak imagery replaced the initial template selection to create bespoke imagery that reflects the poem's Celtic symbolism and natural themes.





- Adding the leaves beneath the heading restored focus to the centre of the page whilst strengthening the natural aesthetic and colour scheme.

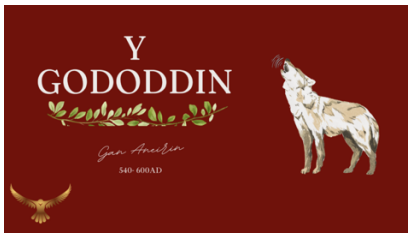
- Challenges:
- Several image placements distracted from the title and required adjustment before a balanced composition was achieved.

3. Landing Page Development:



- The thumbnail design was expanded into a landing page that contained six iconic Welsh poems.
  - Aesthetic Identity:
  - Consistency in the following areas all played roles in establishing a cohesive visual identity:
    - Typography

- Colour
- Style
- Imagery
- Layouts



- To improve differentiation while remaining within the researched Welsh poetry aesthetic, individual background colours were altered for each poem.

- Final Design:
- Six thumbnails were produced before being added to the landing page template.
- Their appearance followed the criteria above.



- Final Landing Page:
- The completed thumbnails were arranged onto a webpage template to form the main poetry landing page:

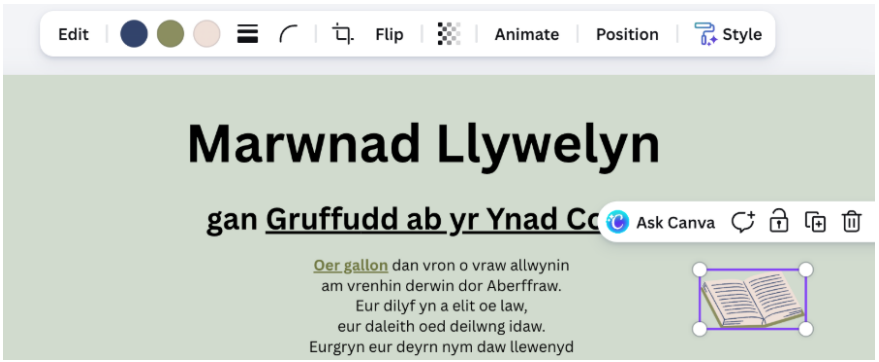


- Aesthetic:
- The following consistencies were included in the final design:
    - Equal sizing, spacing, and alignment for a cohesive layout
    - Simple complimentary font was added to the top and the heading was written in simple complimentary font with upper case lettering to prevent distraction or competition among with the other elements
    - Symbolic imagery to reflect Welsh poetry themes
    - Soft background colour to prevent clashing or competing with other components

- Navigation:
- Navigation was supported through familiar home and search icons, such as:
    - Arrow buttons for browsing poems
    - Home button
    - Search button
    - Thumbnails as user interfaces
- Future development would also include sorting and filtering functions as a quick method of organising and locating content, either:
    - Alphabetically
    - Chronologically

- Challenges:
- Balancing consistency with differentiation required several design revisions to ensure that all the necessary components complimented one another without competing for attention.

4. Poetry Page Structure:



- The individual poem page was developed using the established colour palette and typography.

- Different font sizes created a visual hierarchy, whilst the poem itself remained centrally positions to emphasise its importance.
- Doing so mirrored the approach used by *myShakespeare*, where the text remains the primary focus of the page.

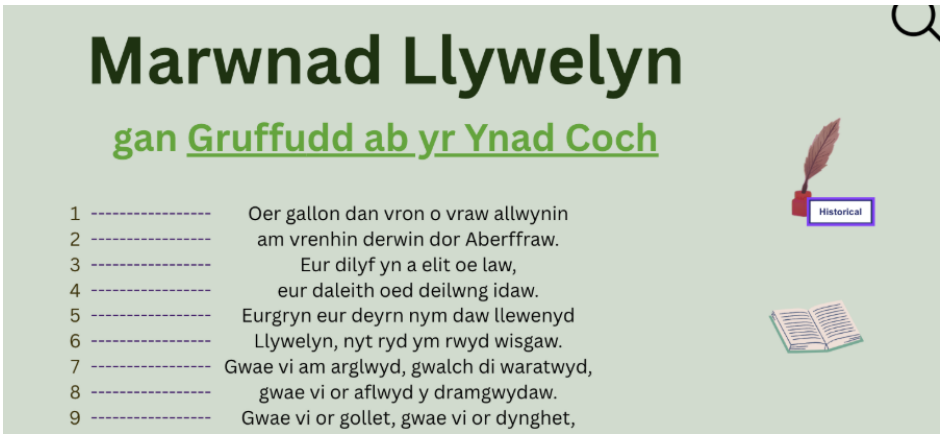
5. Text Analysis Icons and Navigation:



- Aesthetics:
- Custom icons were developed with an illustrative aesthetic, whilst symbolic images were selected to represent the website's analytical categories:
  - Quill- Historical
  - Open Book- Literary
  - Closed Book- Translation
  - Monocle- Bibliography
- Each category received its own colour scheme to aid navigation and recognition.



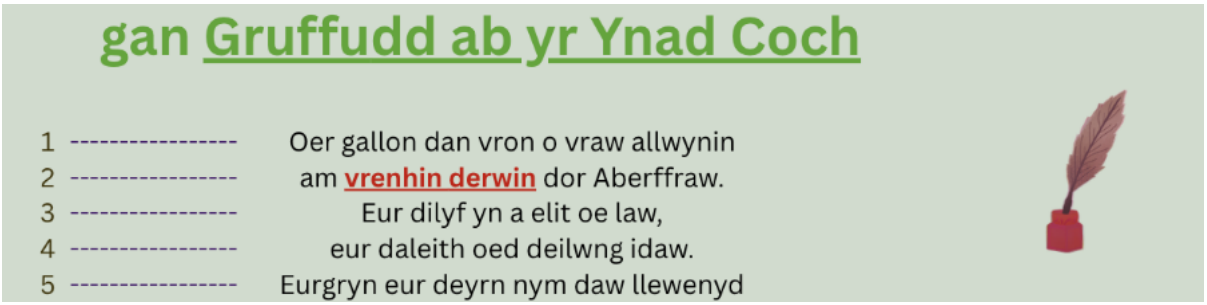
- Navigation:
- Familiar home and search icons were also incorporated to add a sense of familiarity to the navigation processes.



- To improve navigation, hovering over an icon would reveal a text box offering the analysis category.
- The search function would also allow users to locate specific words, phrases, stanzas, or verses

- Challenges:
- *Canva's* limited free image library restricted icon choices, which required relying on colour differentiation to distinguish similarly used symbols.
- For example, the two book symbols required a differentiated colour palette to be applied as a method of creating differentiation between the two.

6. Text Analysis Features:



- Similar to *W3*, a stop- motion approach was applied as a method of simulating the concept of *Welsh Poetry Lab*.
  - Aesthetics:

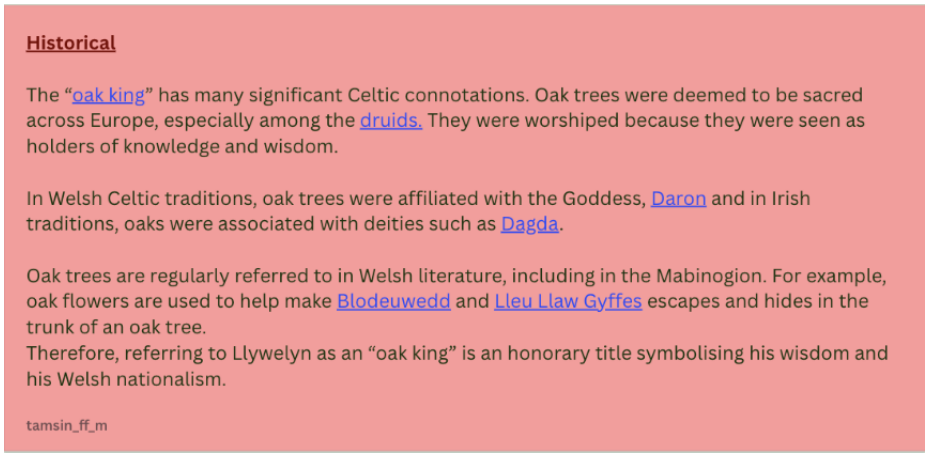
- Highlighted text was colour- matched to its corresponding analysis icon to strengthen visual connections between text and commentary.
- Coloured outlines around selected icons helped to imitate the effect of user interaction if a certain analysis theme or certain lines were selected.



- Analysis:
- Sticky- note graphics were used to simulate pop- up explanations.[26]



- Blue hyperlinks were added to represent the encouragement of further research through external scholarly resources.[27]



[26] R. Andrews, Gwaith Fardd a Beirdd Eraill ail Hanner Y Drydedd Gantrif ar Ddeg, *Studia Celtica,*, (University of Wales Press, 1996), pp. 36- 43

[27] T. Parry, *The Oxford Book of Welsh Verse,* (Oxford University Press, 1962), p. 45

- Challenges:
- A fully interactive system could not be crated within the timeframe and therefore, stop- motion was once again relied on to showcase the prototype.
- The process also highlighted questions surrounding authorship and interpretation, particularly regarding *who* decides which aspects of a poem warrant analysis.

7. Refinement and Accessibility:



- The final refinements focused on readability and accessibility.
  - Arrangement:
  - Different layouts, spacing, and guideline systems were tested to support users with dyslexia or other reading difficulties.[28]
  - As an aid, the following adjustments were considered:
    - Track lines
    - Numbering systems
    - Spacing adjustments
  - A variety of arrangements were explored to decide which offered improved clarity whilst maintaining the overall aesthetic.



[28] R. Damiano, C. Gena, G. Venturini, Testing web-based solutions for improving reading tasks in dyslexic and neuro-typical users. *Multimedia Tools and Applications*, *78*(10), (2019), 13489–13515, https://doi.org/10.1007/s11042-019-7273-5 [Accessed 18th May 2026].

- Challenges:
- Permanent guidelines appeared visually cluttered and ultimately, detracted attention away from the text and clashed with the other components of the design.
- Perhaps offering guidelines could be an optional extra for those users who may need further assistance.

8. Homepage:



Using the *Canva* website template, the homepage was created using the same criteria used to develop the landing page and the poetry page.

- Imagery:
- A large landscape of Yr Eryri was selected to reflect the following aspects of Welsh identity:
    - Culture
    - History
    - Geography
    - Nature
- The image also created visual distinction without overwhelming the rest of the page design and complimenting the colour palette.

- Typography:
- The typography was inspired by Welsh literary publications to reinforce the website's academic and cultural identity.

- Heading:
- English and Welsh heading inclusions displayed together created a visual balance whilst supporting the bilingual representation of the website.

- Challenges:
- Translating the website title into Welsh created difficulties because of differences in worth length:
  - Lab Barddoriaeth Cymru= Welsh Poetry Lab
- This choice would have disrupted the visual balance of the design.
- Consequently, the following alternative was chosen for the final name of the WPTAT:
  - Welsh Poetry= Cerddi Cymraeg
- The simplified wording improved the aesthetics, but it does raise concerns regarding linguistic precision and therefore, academic credibility.

9. Bibliography:



- The final stage of the prototype involved creating a dedicated bibliography page to support the academic purpose of *Welsh Poetry*.

- Aesthetics:
- The page was designed using the same:
  - Earthy colour palette
  - Typography
  - Navigational icons
- All of which maintain a consistency across the website.

- Accessibility:
- Sources were organised according to the MHRA standards to continue the sense of academic prestige.
- Hyperlinks were included to imitate direct access to external research materials to support and encourage independent study.

- Challenges:
- Balancing visual consistency and accessibility with academic presentation proved to be a challenge without the page looking cluttered.

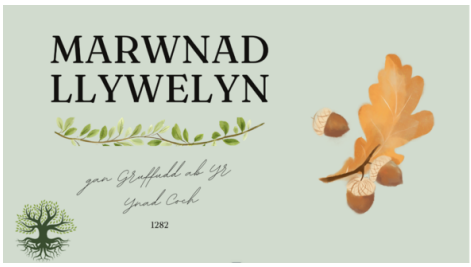
Final Prototype Production:

Link to Welsh Poetry Website:

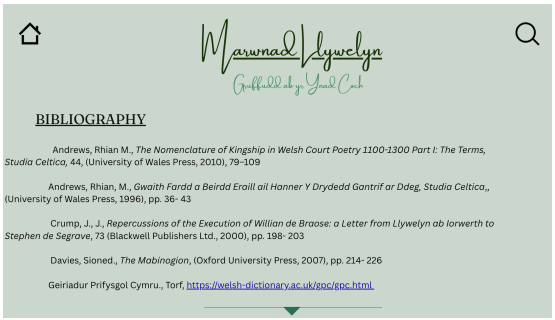
https://welshpoetry.my.canva.site/











Enlarged Screenshots

Homepage:



Poetry Landing Page:



Thumbnail:



Poetry Landing Page:



Analysis Icons:



Text Analysis:



Historical

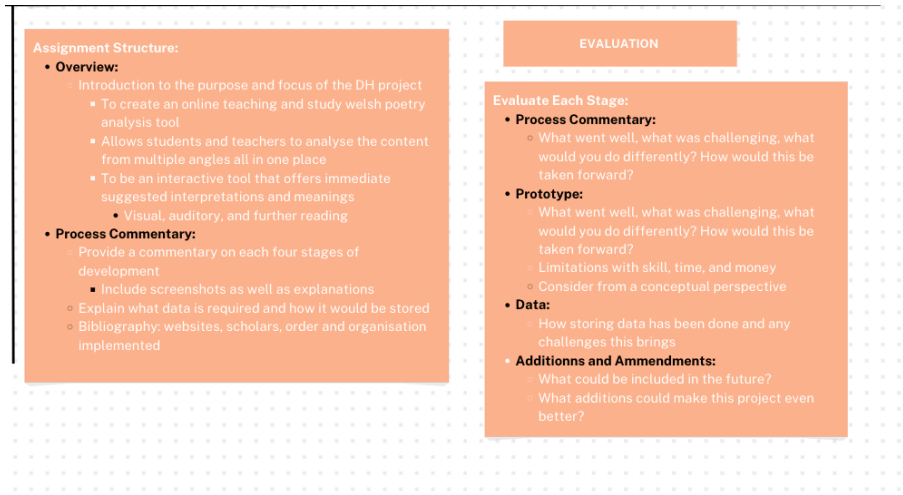
The "oak king" has many significant Celtic connotations. Oak trees were deemed to be sacred across Europe, especially among the druids. They were worshiped because they were seen as holders of knowledge and wisdom.

In Welsh Celtic traditions, oak trees were affiliated with the Goddess, Daron and in Irish traditions, oaks were associated with deities such as Dagda.

Oak trees are regularly referred to in Welsh literature, including in the Mabinogion. For example, oak flowers are used to help make Blodeuwedd and Lleu Llaw Gyffes escapes and hides in the trunk of an oak tree.
Therefore, referring to Llywelyn as an "oak king" is an honorary title symbolising his wisdom and his Welsh nationalism.

tamsin_ff_m

Evaluation



This section evaluates the development of *Welsh Poetry* to determine whether the prototype fulfilled the objectives established at the beginning of the project. Reflecting on the merits, challenges, and future developments will help to assess both the success and limitations of the prototype.

Objectives:

The objectives of project to design a conceptual WPTAT are as follows:

1. **To design a conceptual web- based platform that supports the learning and teaching of Welsh poetry.**
2. **Producing a prototype that focuses on four key webpage designs:**
    - **Homepage**
    - **Poetry landing page**
    - **Individual poetry page**
    - **Bibliography page**
3. **Using *Marwnad Llywelyn* by Gruffudd ab Yr Ynad Coch to illustrate the website's analytical potential.**
4. **To evaluate the prototype and its future the possibilities.**

Merits

The development of *Welsh Poetry* successfully demonstrated the potential of a web-based text analysis tool for the study of Welsh poetry.

- Through the creation of four prototype webpages, the project fulfilled its core aim of exploring how web design can support literary learning and teaching.
- One of the strongest outcomes was the creation of a cohesive visual identity that ran through all the prototypes.

- Research into websites such as *myShakespeare* and museum webpages informed decisions regarding:
    - Colour palettes
    - Typography
    - Spacing and layout
    - Imagery
    - Navigation
- Using *Canva* allowed these ideas to be developed into a visually consistent prototype that reflected the earth and historical aesthetic associated with Welsh poetry.
- Familiar navigational tools, including options such as:
    - Filters
    - Home icons
    - Search options
    - User interfaces

  all improved familiarity, which in turn, improved usability and accessibility.
- The project met its analytical objectives through the use of *Marwnad Llywelyn* as the primary case study.
- The poem provided strong literary, historical, and linguistic material that demonstrated how layered forms of analysis could function within the website.
- The following features illustrated how *Welsh* Poetry would support users could in close textual analysis whilst encouraging independent research:
    - Simulated pop- up commentary boxes
    - Colour- coded analytical categories
    - Hyperlinks to external academic sources
    - Bibliography page for poem- specific references
- The addition of a bibliography page further strengthens the website's academic credibility by offering primary and secondary sources formatted within the MHRA guidelines.

Challenges:

The project also highlighted several challenges associated with Digital Humanities development:

- Initial experimentation with *W3Schools* demonstrated the possibilities of coding a bespoke website; however, producing a fully operational platform of this complexity within the project timeframe proved unrealistic for a novice web developer and coder.
- Although *Canva* offered a more accessible alternative, limitations within the free version restricted creative choices, such as:

    - Icon choices
    - Fonts
    - Interactive design choices
    - Templates
- Consequently, the final prototype relied on a “stop- motion” style simulation rather than having fully functioning interactive features.
- Balancing aesthetics with academic precision also became a challenge because decisions surrounding the bilingual title prioritised visual balance and accessibility over complete linguistic accuracy; and therefore, perceptions of scholarly reliability could be jeopardised.
- While the prototype focused strongly on student engagement, further attention could have been given to the teaching resources, providing suggestions such as:
    - Lesson plans
    - Downloadable teaching resources
    - Guided classroom activities

Future Amendments:

Future development would benefit greatly from:

    - Increased time
    - Funding
    - Collaboration
- Producing *Welsh Poetry* demonstrated that successful Digital Humanities projects require interdisciplinary expertise that span across:
    - Literature
    - History
    - Computer science
    - Design
    - Psychology
    - User experience and more
- A collaborative team would, therefore, allow the project to evolve beyond a conceptual porotype into a fully operational educational platform.
- Several opportunities for expansion also emerged during the evaluation process, for example:
    - Interactive Mapping Tools: Inspired by projects such as *Medieval Chester,*[29] visualising geographical references within Welsh poetry could strengthen connections between literature, landscape, and identity.

[29] Medieval Chester, *Explore Map*, https://discover.medievalchester.ac.uk/maps-and-tours/map/index.html [Accessed 27th May 2026].

- Audio and Video: Offering performances of poems could further enhance accessibility and reflect the oral traditions of Welsh bardic culture.

Together, these additions would transform the prototype from a static analytical tool into a richer, multisensory learning experience.

Final Thoughts

Overall, the project successfully met its primary objectives by demonstrating how Digital Humanities and creative web design can support the study of Welsh poetry. Although technical and practical limitations restricted the scope of the porotype, the research, design process, and completed webpages collectively illustrate the strong educational and cultural potential of a fully developed Welsh poetry analysis platform in the future.

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