

Digital Hothouse

<https://www.digitalhothouse.co.nz>

TECHNICAL AUDIT

OERU

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1 – Introduction

The current OERu website is well built but help is needed to better optimise the site for search engines. This audit has been carried out for this exact purpose and contains all of the potential SEO issues with the site, as well as fixes for them. By implementing the recommendations provided in this document, OERu will dramatically increase the likelihood that they perform well in search. Although this recommendation is from a search perspective, many of these elements will aid user experience as well.

This document covers all of the key elements of technical SEO that are currently lacking. Some of these items include:

- SEO Plugins
- Indexation
- Duplication
- Speed
- Schema
- Analytics

Digital Hothouse will work with OERu on prioritising and performing the technical fixes necessary. A table of tasks and priorities is included at the end of this document. We will set up and provide access to a separate Google Doc to keep track of all changes.



2. Technical Audit

2.1 Plugins

Plugins are pieces of technology that allow you to add functionality to an existing program. In the case of OERu, a number of different plugins will need to be used across both the WordPress and SilverStripe websites. This will allow OERu to access additional functionality that would be difficult to acquire without the use of a plugin. We have included this section first as we have highlighted where each of the below plugins can be used to help with any issues with the OERu site.

2.2 SilverStripe Website

The main OERu site is hosted on SilverStripe. This can be a platform that is difficult to optimise for SEO but with the correct plugin it can be dramatically increased.

2.2.1 SilverStripe for SEO by Cyber Duck

Recommendation	
	<p>The SilverStripe for SEO plugin currently has the largest functionality out of the SEO SilverStripe plugins and will allow OERu to do what they need in terms of SEO without having to make too many big changes themselves.</p> <p>It is also updated frequently, meaning any bugs or additional features should be added quickly.</p> <p>Digital Hothouse can assist in the deployment of this plugin.</p>

2.3 WordPress Website(s)

The core subdomains for OERu are hosted on WordPress. This is a good move for SEO as it is one of the easiest CMS's to optimise for search engines. Based on OERu's current needs we recommend the below plugins. As the website continues to evolve, we may need to deploy additional plugins to add functionality. These will be carefully evaluated to avoid plugin bloat, which can have a large effect on page speed.

2.3.1 Yoast

Recommendation

Yoast is one of the most highly used WordPress plugs as it covers all the basics of SEO. The free version is more than enough to ensure that a site is running well for SEO.

Digital Hothouse can assist in the deployment of this plugin.

2.1.3 Schema Pro

Recommendation

Schema is a type of mark-up used to organise information in a way that Google understands. More information is provided in the schema section of this document, [here](#).

In order to implement schema, it needs to be placed in the source code. This can take a lot of time if you are using lots of different types of mark ups. In order to make the implementation of Schema easier on the WordPress sites we recommend that OERu makes use of [Schema Pro](#). This plugin is the only WordPress plugin on the market that has functionality for Course schema. As this will be the most highly used schema on the OERu website it is vital that it is deployed correctly and kept up to date. More information on course schema is provided in the [Schema](#) section of this document.

Digital Hothouse can assist in the deployment of this plugin.

2.2 Indexation

Indexation is the process of adding pages into Google’s index. Google does this by following links that you and other sites provide. This is called crawling. The more a site is crawled, and the ease with which this is done will influence a site’s organic visibility.

2.2.1 Subdomain Handling

Plugins used: SilverStripe for SEO, Yoast

Description	Content on websites is organised in one of two ways – through subdomains or subfolders. Google states that they treat them the same way, but a lot of SEOs disagree. Subdomains are often harder to rank for as the authority is split differently than if subfolders are used. They are best used when each subdomain has a specific use that can stand on its own and attract unique links.
Recommendation	<p>The OERu site has a large number of subdomains, some of which are helpful to users looking for answers in search results. We recommend that some of the OERu subdomains are no indexed. This will remove them from the search results and provide a more cohesive experience for the end users. The following lists which subdomains should and should not be de-indexed:</p> <p>Indexed:</p> <ul style="list-style-type: none">• https://oeru.org/• https://course.oeru.org/• https://tech.oeru.org/ <p>No Indexed</p> <ul style="list-style-type: none">• https://plan.oeru.org/• https://mastodon.oeru.org/about• https://forums.oeru.org/• https://community.oeru.org/• https://mantis.oeru.org/• https://bookmarks.oeru.org/• https://git.oeru.org/• http://presentation.oeru.org/• http://groups.oeru.org/ <p>Digital Hothouse are open to a conversation on this if OERu thinks some of these sites are valuable to search users.</p> <p>It is worth noting that if at a later date we decide that one of these sites should be indexed it is relatively easy to reverse if set up properly.</p> <p>By removing the majority of the subdomains from the index, it will allow us to focus our efforts on the most important</p>

	<p>subdomains. This will result in the priority subdomains seeing ranking increases much faster than if all of the sites were focused on.</p> <p>In order to remove those sites from the index in all major search engines a three step process will need to be undertaken.</p> <ol style="list-style-type: none"> 1. Add a no index tag to all the pages on the affected subdomains. This will work for Google and Bing who respect no index tags. 2. Add an exclusion in the robots.txt tag for the other search engines that do not respect no index tags. 3. Submit the site's sitemap to its respective Google and Bing search console account to speed up the process of no indexing. <p>This will result in all of the right pages being removed from the index.</p>
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2.2.2 Sitemaps

Plugins used: SilverStripe for SEO, Yoast

Description	<p>An XML sitemap is a file where you can list the web pages of your site to tell Google and other search engines about the organization of your site content. Search engine web crawlers, like Googlebot (Googles crawler), read this file to more intelligently crawl your site. For the sitemap to be found easily it should be placed at the root:</p> <ul style="list-style-type: none"> • e.g. www.mysite.co.nz/sitemap.xml <p>It should contain all the sites URLs.</p>
Recommendation	<p>None of the OERu subdomains currently have XML sitemaps. This will impact the rate at which pages are crawled and will also impact the rate at which new pages are discovered by Google. Each subdomain should have its own sitemap that sits at its root e.g.</p> <ul style="list-style-type: none"> • https://oeru.org/sitemap.xml • https://course.oeru.org/sitemap.xml <p>These sitemaps should automatically update whenever new content is added or removed from their respective subdomains. The plugins recommended will do this.</p> <p>Sitemaps should be created for all sites, even those we don't want indexed, as it will speed up that process.</p>



2.2.3 Search Console profiles for each subdomain

Plugins used: None

Description	<p>Search Console is a Google platform created for webmasters. It allows them to keep track of what is indexed for their site, how it is indexed, if errors occur and a host of other information.</p> <p>Sites that make use of subdomains need to create specific profiles for each of these subdomains. This is because they are viewed as individual properties by Google.</p>
Recommendation	<p>As the OERu site uses subdomains they will need to create individual search console profiles for each of the individual subdomains. All of the subdomains should have search console profiles created as this will make it easier to monitor and check indexation.</p> <p>Profiles should be set up for those sites that we do not want indexed as it allows us to take steps to reduce their indexation and monitor its effectiveness.</p> <p>Digital Hothouse will set these profiles up.</p>

2.2.4 Sitemaps submitted to search console

Plugins used: None

Description	<p>Search console is one of the only direct paths to Google for SEO. This makes the information contained in here, and the information submitted incredibly important. One of the key things that must be submitted to your search console profile is your sitemap. This will enable Google to quickly crawl your website and be updated when things change. It is also a great way to find out if there are any errors in your sitemap.</p>
Recommendation	<p>Once OERu's sitemaps have been created they should be submitted to search console. Digital Hothouse will do this.</p> <p>This should happen for both the sites we want indexed and those we don't.</p>

2.2.5 A link to the sitemap is provided in the robots.txt

Plugins used: SilverStripe for SEO, Yoast

Description	<p>The sitemap and the robots.txt file are used by search engines to understand and then crawl sites. They solve different functions but in order to do their jobs well, and be the most helpful for Google, they should be connected.</p> <p>This is done by including a link to the sitemap in the robots.txt.</p>
Recommendation	<p>Currently the robots.txt does not contain a link to the sitemap. This should be updated once the sitemaps are created. Digital Hothouse will complete this.</p>

2.2.6 Indexation of parameters

Plugins used: SilverStripe for SEO, Yoast

Description	<p>When a site is created, it is likely that not all the pages that have been created are ones that you would want indexed. This could be for a variety of reasons, but having pages that you don't want indexed, indexed can create a disjointed journey for the consumer and for bots. Only pages that form an important step in the customer journey should be present. The rest should be removed from the index.</p>
Recommendation	<p>Currently there is one URL with a parameter being indexed. This is the following URL:</p> <ul style="list-style-type: none">• https://oeru.org/register-for-course-updates?course=94&partner=33 <p>The link currently results in a 500 error. Whilst this is not a large issue now, work needs to be done to understand how this URL was indexed and prevent parameters from being indexed in the future.</p> <p>Where there are instances where parameters can be created, an assessment needs to take place to decide whether that parameter should be indexed. If it shouldn't, it should be removed in the subdomains search console profile and a no index tag applied.</p> <p>Digital Hothouse and OERu will work together to understand where these errors are coming from and provide solutions as appropriate.</p>

2.2.7 HTTP not HTTPS in one of the subdomains

Description	HTTP stands for hypertext transfer protocol and is what allows the transfer of information from a web server to a browser – allowing you to view web pages. HTTP, however, is not secure and so the information being passed between the server and the browser can be gathered by third parties. HTTPS is the secure version of HTTP and requires the purchase of an SSL certificate. This means that when information is transferred from a web server, it is secure. This is now considered a ranking factor.
Recommendation	One of the OERu subdomains is currently HTTP not HTTPS: <ul style="list-style-type: none">• http://groups.oeru.org/ This should be updated so that all of OERu’s subdomains are secure. Digital Hothouse can assist OERu with this.

2.3 Duplications

Search engines try to show pages with unique information. This means that when duplicate information appears on a site, search engines may decide that this has been done in a manipulative way and penalise a site. It can have an impact on the indexing of a site. If multiple version of a page exists it can confuse search engines as to which is the “correct” version. This can also lead to issues with reporting.

2.3.1 URL Duplicates

Description	The trailing slash at the end of a webpage historically indicated one thing – that the URL's destination was a folder and not a file. URLs without a trailing slash were files and typically ended with .html or .aspx, indicating the type of file that page was. This file structure system is no longer in place and the inclusion of a trailing slash, a .html or the like no longer matters. They are often used inconsistently throughout a website and when no default is selected, this results in duplicate content.
Recommendation	<p>Some of OERu's content currently resolves when a trailing slash or a .html is included, and also when it is not. A default should be selected and then any URL that does not conform to this format should be rewritten to 301 redirect one version to the correct URL.</p> <p>This must be managed carefully to reduce the amount of redirects any one URL goes through. This can be done through the .htaccess file. Digital Hothouse can assist with the rewrite rules.</p>

2.3.2 Canonicals

Plugins used: SilverStripe for SEO, Yoast

Description	A canonical tag is used on webpages which contains duplicate information to signify to search engines the preferred version of a page and thus provide that page with value. It is also considered best practice to place self-referring canonicals on every page.
Recommendation	The OERu site currently makes use of self-referring canonicals on most of its pages. This is great but not all pages contain this tag. We have included a list of these in a separate document.

2.3.3 Canonicals on the WikiEducator site

Plugins used: Yoast

Description	A canonical tag is used on webpages which contains duplicate information to signify to search engines the preferred version of a page and thus provide that page with value. It is also considered best practice to place self-referring canonicals on every page.
Recommendation	<p>One of the big issues with the OERu site currently are issues with huge amounts of duplication. The website's courses are created on the WikiEducator site and then pulled through to the course.oeru.org subdomain. As both of these sites are accessible to Google, they are both able to be indexed, creating duplicate content. Duplication dilutes the authority of the page the duplicate content is hosted on.</p> <p>In order to avoid this, canonicals need to be placed on the WikiEducator site, pointing back to the course.oeru.org variant. This will tell Google that this is the main version of the course and the one that should be indexed.</p> <p>This will also boost the performance of the OERu course pages as some of the authority from the higher domain site, WikiEducator, will boost the overall authority of these pages.</p> <p>Getting the correct canonical implementation is key to ensuring that no duplicate content is indexed by Google. It will be particularly important if OERu decides to proceed with plans to host some of its content on other domains.</p> <p>The canonical implementation should look as follows:</p> <p>The WikiEducator "Introduction to entrepreneurship" about page would have a canonical pointing to the course version of the page as follows:</p> <pre><link rel="canonical" href="https://course.oeru.org/ipm101/startup/about/" ></pre> <p>The course page on the course.oeru.org site would have a self-referring canonical as follows:</p> <pre><link rel="canonical" href="https://course.oeru.org/ipm101/startup/about/" ></pre> <p>This would remove any penalties for duplicate content.</p>

2.4 Crawl Errors

Crawl errors are errors that occur when someone tries to access a URL, but they are unable to do so. There are many types of crawl errors but the most common are:

- 404 errors: When a bot attempts to crawl a page, but it doesn't exist
- 500 errors: When something has gone wrong on the website's server, but the error cannot be identified.

Fixing these is important for both search visibility and user experience.

2.4.1 404 Errors

Description	A 404 error is the most common of the HTTP errors. It occurs when the requested resources do not exist. It can occur when a webpage resource has been linked to incorrectly but usually occurs when a webpage or resource is removed. Instead of doing this, the webpage should be redirected to a new page. If this is not possible a custom 404 page with links to additional content should be created.
Recommendation	<p>There are currently 114 x 404 pages on the OERu site. These need to be fixed. We have provided the 404ing URLs in an attached spreadsheet. Ideally these should be mapped to a place that meets the same user intent as the original URL.</p> <p>Going forward, when pages are no longer relevant, they should either be updated or redirected to a relevant location.</p> <p>Digital Hothouse will monitor this going forward.</p>

2.5 Speed

A website's speed is a big factor in determining how often and how well a website is crawled. Slow websites also create a poor user experience and can lead to site abandonment – 40% of visitors will leave a site if it fails to load in 3 seconds. There is also a negative impact on conversion rates when a site is slow – every 1 second delay causes a 7% loss in conversion. Therefore, doing everything possible to decrease sites loading time is crucial.

Site speed is not a massive issue for the OERu site as it is currently very fast. There are, however, some improvements that could be made to further increase the site's speed. The below optimisations should be considered:

2.5.1 Browser Caching

Description	Setting an expiry date for or a maximum age for static resources (such as images) in the HTTP header instructs the browser to download these resources from the computer, not over the network. This means that the second time (and third and fourth and so on) a user visits a site it will load significantly faster as it must request fewer resources from the server the second time.
Recommendation	<p>The resources that we think could be cached have been attached to this document OERu should evaluate this list and seek to change the expires headers on these resources.</p> <ul style="list-style-type: none">• Truly static content should have an expiry to a 1 year• All other content to at least a week unless it truly changes more frequently. <p>This will have a large impact on site load time for repeat visitors.</p>

2.5.2 Defer JavaScript

Description	Sites that rely on JavaScript can find they have issues with site speed. This is because JavaScript is one of two elements (the other is CSS) that block the rendering (loading) of a page until it is fully loaded. This can be prevented by deferring the loading of JavaScript on the site, so that it only loads after the content of the page has loaded. This means that the loading of JavaScript will not influence page speed, resulting in a faster site.
Recommendation	<p>Currently 1.3MB of JS is being parsed on initial page load. This is blocking the rendering of the page and causing speed delays. As much of this JS as possible should be deferred until after the page has rendered.</p> <p>The files that are causing this delay are attached in a separate spreadsheet.</p>

2.5.3 Images

Description	<p>The larger an image is, the longer it will take to load, and this will, in turn, increase the loading speed of the entire webpage. There are a few main ways to optimise images:</p> <ul style="list-style-type: none">• Compressing images so that they are only as big as they need to be is an easy way to increase site speed.• Changing the resolution of an image will reduce the file size and can be done without reducing the appearance of the quality of the image on your website.• Cropping images so only the key information is shown• Properly sizing images: Make sure that images are the right size for the area that they are being added to is also key and can cut the load time of images dramatically.
Recommendation	<p>The majority of the images on the OERu website could benefit from compression. The images most in need of compression are contained in a separate document.</p> <p>Ideally, whenever an image is uploaded it would be compressed automatically. If this is possible then it would make sense for this to be built into the site's functionality.</p> <p>If not, Digital Hothouse will work with OERu on a solution on new images, but we can also assist with all the existing imagery.</p>

2.6 Schema

Schema is a type of mark-up which can be added to pages – for the purpose of making them quickly understood, not to trick Google. There are thousands of different schemas in the library, but only some which Google accepts and only some which are relevant to OERu. It is possible to use either JSON or Microdata for implementation. As most companies prefer JSON that is what we have used for the examples.

2.6.1 Organisational Schema

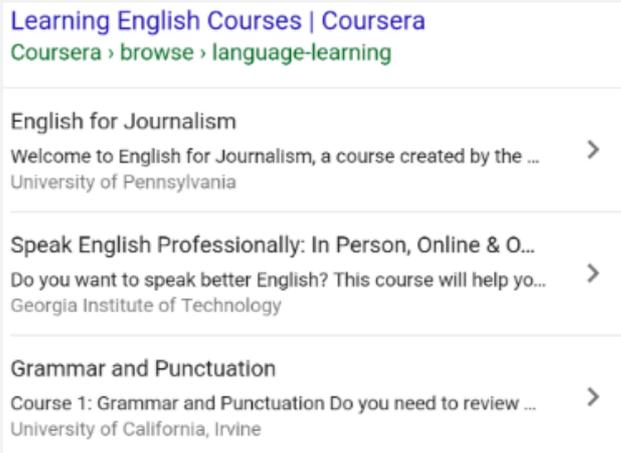
Plugins used: SilverStripe for SEO, Schema Pro

Description	<p>Organisation Schema shows an organisation's key details, allowing them to then appear in the knowledge panel – the group of information found to the right of the main search results. The type of information that can be marked up using organisation schema is:</p> <ul style="list-style-type: none">• Website• Logo• Contact numbers• Address• Social Profiles
Recommendation	<p>OERu should place organisation schema onto every page (except for pages which are blocked by Robots.txt, or post login) with each component nested.</p> <p>We have included an example of the correct organisation schema.</p> <p>The highlighted parts of the code snippet below have been assumed by information available from the current OERu main site. If there is additional information, we can adjust this schema:</p> <pre><script type="application/ld+json"> { "@context": "http://schema.org", "@type": "EducationalOrganization", "name": "OERu", "alternateName": "Open Educational Resources University", "url": "https://oeru.org", "logo": "https://oeru.org/assets/Uploads/OERu-acronym-h97px.png", "sameAs": ["https://www.facebook.com/OERuniversitas", "http://twitter.com/OERuniversitas",</pre>

```
"https://plus.google.com/u/0/communities/111229013331366017087",  
  "http://www.linkedin.com/company/3333840"  
]  
}  
</script>  
On the
```

2.6.2 Course Schema

Plugins used: SilverStripe for SEO, Schema Pro

<p>Description</p>	<p>Course schema provides a way to mark up your courses so that they can appear in Google search. It provides details such as the course name, who is offering the course as well as a short description of the course. Course Schema can appear as the following:</p> <div data-bbox="561 987 1182 1440"></div> <p>It is a relatively underutilised schema by the big education sites and so can provide a point of difference in the search results for organisations that use it.</p>
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Recommendation

Course schema should be placed on to every page that refers to a particular course. This will be most relevant on the main site and the courses subdomain.

On the WordPress courses site this can be handled by the Schema Pro Plugin. Documentation on how to do this is provided [here](#). Digital Hothouse can assist in this implementation.

Schema will need to be implemented more manually on the SilverStripe site. It will need to be included in the free text field for schema on every page that makes mention of a course. The schema will look as follows:

```
<script type="application/ld+json">
{
  "@context": "https://schema.org",
  "@type": "Course",
  "name": "The role of the project manager",
  "description": "This course introduces the fundamentals that project management is built upon, enabling you to develop and lead a successful project team.",
  "provider": {
    "@type": "Organization",
    "name": "Otago Polytechnic",
    "sameAs": "http://www.op.ac.nz/"
  }
}
</script>
```

The highlighted parts of the code snippet above have been assumed by information available from the current OERU site.

This is a relatively new schema type to be accepted by Google and so the fields available are limited. As they are updated, we will update what is included in the schema.

2.6.3 Site Links Search Box

Plugins used: SilverStripe for SEO, Schema Pro

Description	The site search link box is a schema type that was recognised by Google a few years ago and is now one of the most widely used schema mark ups. When used, it allows a search box to appear below the main search result for a brand (generally the home page). This allows users to search a brand's site directly from the Google search results.
Recommendation	We recommend that the site links search box is implemented on the home page of the OERu site. The below code provides an example of how this could be implemented: <pre><script type="application/ld+json"> { "@context": "http://schema.org/", "@type": "WebSite", "name": "OERu", "url": "https://oeru.org/", "potentialAction": { "@type": "SearchAction", "target": "https://oeru.org/home/SearchForm?Search={search_term_string}&action_results=", "query-input": "required name=search_term_string" } } </script></pre>

2.6.4 Open Graph

Plugins used: SilverStripe for SEO, Yoast

Description

Open graph is another mark-up, like Schema, which dictates how a website appears within Facebook when a link is shared there.



Recommendation

OERu does not currently make use of the Open Graph tag. This should be implemented on all subdomains.

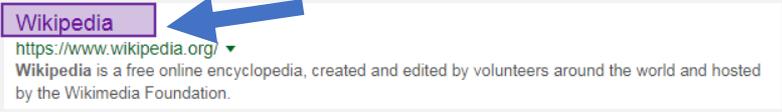
The information for the open graph mark up is mostly pulled from the meta tag information. Once this information has been updated it should be relatively easy to implement.

2.7 Meta Details

Meta details provide information to users and search engines about the contents of the page. They can be optimised to increase the likelihood that websites appear for certain terms. There are a number of different meta details that can be included but the most relevant are included below:

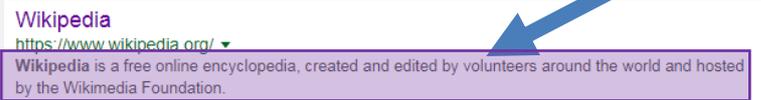
2.7.1 Title Tags

Plugins used: SilverStripe for SEO, Yoast

Description	<p>This is the page title in search results; it is also what is displayed in web browsing tabs. It should accurately describe the page and be no longer than 55 characters. They should be unique on each page.</p> 
Recommendation	<p>There are currently 3 main problems with OERu's title tags:</p> <ul style="list-style-type: none">• 32 pages have missing title tags.• 813 pages have duplicate title tags.• 1062 pages title tags are too short. <p>These will need to be added to help improve search rankings. Key pages will be individually written, and others will be constructed based on a formula. Digital Hothouse will either upload or send these through periodically as they become available.</p>

2.7.2 Meta Descriptions

Plugins used: SilverStripe for SEO, Yoast

Description	<p>Meta descriptions provide a concise summary of what a page is about. It is often what appears underneath the title of a page in a search result, although sometimes Google will choose its own descriptions.</p>  <p>Wikipedia https://www.wikipedia.org/ ▼ Wikipedia is a free online encyclopedia, created and edited by volunteers around the world and hosted by the Wikimedia Foundation.</p> <p>They should be written for users and be no longer than 165 characters, as anything longer will get truncated. They should be unique on each page.</p>
Recommendation	<p>None of the pages on the OERu site currently have meta descriptions. These will need to be added to help improve search rankings. Key pages will be individually written, and others will be constructed based on a formula. Digital Hothouse can either upload or send these through periodically as they become available.</p>

2.7.3 Header Tags

Plugins used: SilverStripe for SEO, Yoast

Description



Header tags define the main titles of the page. They should be used throughout the content at appropriate times. There can be many header tags, but they need to be used in the correct order – H1 being the title of the page, H2 being subheadings and so on. They should all be unique.

Wikipedia

From Wikipedia, the free encyclopedia

This article is about the Internet encyclopedia. For Wikipedia's home page, see Wikipedia's Main Page. For Wikipedia's visitor introduction, see Wikipedia's About Page. For other uses, see Wikipedia (disambiguation).

Wikipedia ([listen]] (help·info) or [listen]] (help·info)) is a free online encyclopedia with the aim to allow anyone to edit articles.^[a] Wikipedia is the largest and most popular general-reference work on the Internet^[b] and is ranked the 18th-most popular website.^[c] Wikipedia is owned by the nonprofit Wikimedia Foundation (NMF).^[d]

Wikipedia was launched on January 15, 2001, by Jimmy Wales and Larry Sanger.^[e] Sanger earned its name.^[f] It is a portmanteau of wiki^[g] and encyclopedia. There was only the English-language version initially, but it quickly developed similar versions in other languages, which offer in content and in editing practices. With 5,476,493 articles^[h] the English Wikipedia is the largest of the more than 290 Wikipedia encyclopedias. Overall, Wikipedia consists of more than 40 million articles in more than 250 different languages^[i] and, as of February 2014, it had 18 billion page views and nearly 500 million unique visitors each month.^[j]

As of March 2017, Wikipedia has about forty thousand high-quality articles known as Featured Articles and Good Articles that cover vital topics.^[k] In 2005, Nature published a peer review comparing 42 science articles from Encyclopædia Britannica and Wikipedia and found that Wikipedia's level of accuracy approached that of Encyclopædia Britannica.^[l]

Wikipedia has been criticised for allegedly exhibiting systemic bias, presenting a mixture of "truths, half truths, and some falsehoods"^[m] and, in controversial topics, being subject to manipulation and spin.^[n]

History

Main article: History of Wikipedia

Nupedia

Other collaborative online encyclopedias were attempted before Wikipedia, but none were successful.^[o]

Nupedia began as a complementary project for Nupedia, a free online English-language encyclopedia project whose articles were written by experts and reviewed under a formal process.^[p] Nupedia was founded on March 9, 2000, under the ownership of Bomis, a web portal company. Its main figures were Jimmy Wales, the CEO of Bomis, and Larry Sanger, editor-in-chief for Nupedia and later Wikipedia. Nupedia was licensed initially under its own Nupedia Open Content License, switching to the GNU Free Documentation License before Wikipedia's founding at the urging of Richard Stallman.^[q] Sanger and Wales founded Wikipedia.^[r] While Wales is credited with defining the goal of making a publicly editable encyclopedia,^[s] Sanger is credited with the strategy of using a wiki to reach that goal.^[t] On January 10, 2001, Sanger proposed on the Nupedia mailing list to create a wiki as a "feeder" project for Nupedia.^[u]

Launch and early growth

Wikipedia was launched on January 15, 2001, as a single English-language edition at www.wikipedia.com,^[v] and announced by Sanger on the Nupedia mailing list.^[w] Wikipedia's policy of "neutral point-of-view"^[x] was codified in its first months. Otherwise, there were relatively few rules initially and Wikipedia operated independently of Nupedia.^[y] Originally, Bomis wanted to make Wikipedia a business for profit.^[z]

Wikipedia gained early contributors from Nupedia, Slashdot postings, and web search engine indexing. By August 8, 2001, Wikipedia had over 9,000 articles.^[aa] On September 25, 2001, Wikipedia had over 13,000 articles.^[ab] By the end of 2001, it had grown to approximately 20,000 articles and 18 language editions. It had reached 26 language editions by late 2002, 46 by the end of 2003, and 161 by the first days of 2004.^[ac] Nupedia and Wikipedia coexisted until the former's servers were taken down permanently in 2003, and its text was incorporated into Wikipedia. The English Wikipedia passed the mark of two million articles on September 9, 2007, making it the largest encyclopedia ever assembled, surpassing even the 1408 Yongle Encyclopedia, which had held the record for almost 500 years.^[ad]

Citing fears of commercial advertising and lack of control in Wikipedia, users of the Spanish Wikipedia forked from Wikipedia to create the Enciclopedia Libre in February 2002.^[ae] These moves encouraged Wales to announce that Wikipedia would not display advertisements, and to change Wikipedia's domain from wikipedia.com to wikipedia.org.^[af]

Though the English Wikipedia reached three million articles in August 2009, the growth of the edition, in terms of the numbers of articles and of contributors, appears to have peaked around early 2007.^[ag] Around 1,800 articles were added daily to the encyclopedia in 2009, by 2013 that average was roughly 800.^[ah] A team at the Palo Alto Research Center attributed the slowing of growth to the project's increasing exclusivity and resistance to change.^[ai] Critics suggest that the growth is faltering naturally because articles that could be called "low-hanging fruit"—topics that clearly merit an article—have already been created and built up extensively.^[aj]

In November 2009, a researcher at the Rey Juan Carlos University in Madrid (Spain) found that the English Wikipedia had lost 49,000 editors during the first three months of 2009; in comparison, the project lost only 4,500 editors during the same period in 2008.^[ak] The Wall Street Journal cited the army of volunteers who edit and disperse related to such content among the reasons for the trend.^[al] Wales disputed those claims in 2009, denying the decline and questioning the methodology of the study.^[am] Two years later, in 2011, Wales acknowledged the presence of a slight decline, noting a decrease from "a little more than 36,000 editors" in June 2010 to 35,000 in June 2011. In the same interview, Wales also claimed the number of editors was "stable and sustainable".^[an] A 2013 article titled "The Decline of Wikipedia" in MIT's Technology Review questioned this claim. The article revealed that since 2007, Wikipedia had lost a third of the volunteer editors who update and correct the online encyclopedia and those still there have focused increasingly on minutiae.^[ao] In July 2012, The Atlantic reported that the number of administrators is also in decline.^[ap] In the November 25, 2013, issue of New York magazine, Katherine Ward stated "Wikipedia, the sixth-most used website, is facing an internal crisis".^[aq]

Milestones

In January 2007, Wikipedia entered for the first time the top-ten list of the most popular websites in the U.S., according to comScore Networks. With 42.9 million unique visitors, Wikipedia was ranked number 9, surpassing The New York Times (#10) and Apple (M1). This marked a significant increase over January 2006, when the rank was number 33, with Wikipedia receiving around 18.3 million unique visitors.^[ar] As of March 2015, Wikipedia has rank 5^[as] among websites in terms of popularity, according to Alexa Internet. In 2014, it received 8 billion pageviews every month.^[at] On February 9, 2014, The New York Times reported that Wikipedia has 16 billion page views and nearly 500 million unique visitors a month, "according to the ratings firm comScore."^[au]

On January 19, 2012, the English Wikipedia participated in a series of coordinated protests against fast proposed laws in the United States Congress—the Stop Online Privacy Act (SOPA) and the PROTECT IP Act (PIPA)—by backing out its pages for 24 hours.^[av] More than 152 million people viewed the blacked-out explanation page that temporarily replaced Wikipedia content.^[aw]

Loveland and Reagle argue that, in process, Wikipedia follows a long tradition of historical encyclopedias that accumulated improvements piecemeal through "stigmergic accumulation".^[ax]

On January 20, 2014, Subodh Verma reporting for The Economic Times indicated that not only had Wikipedia's growth flattened but that it has "lost nearly 10 per cent of its page-views last year. That's a decline of about 2 billion between December 2012 and December 2013. Its most popular versions are leading the slide: page-views of the English Wikipedia declined by 12 per cent, those of German version did by 17 per cent and the Japanese version lost 9 per cent."^[ay] Verma added that, "While Wikipedia's managers think that this could be due to errors in counting, other experts fear that Google's Knowledge Graph project launched last year may be gobbling up Wikipedia users."^[az] When contacted on this matter, Clay Shirky, associate professor at New York University and fellow at Harvard's Berkman Center for Internet and Security indicated that he suspected much of the page view decline was due to Knowledge Graphs, stating, "If you can get your question answered from the search page, you don't need to click [any further]".^[ba] By the end of December 2016, Wikipedia was ranked 18th in the most popular websites globally.^[bb]

Recommendation

There are currently 3 main problems with OERu's title tags:

- 232 pages are missing H1s
- 1,370 pages have duplicate H1s
- 1,367 pages have multiple H1s.

These will need to be added/amended to help improve search rankings. Key pages will be individually written, and others will be constructed based on a formula. Digital Hothouse can either upload or send these through periodically as they become available.



2.8 Images

Images are an integral part of any website and in modern websites can form a large part of what is on display to users. Making sure that a website's images are optimised for search is key so that search engines can properly understand a page. It can also have an impact on images appearing in Google image search, another important search engine. Some of the image optimisation content has already been included in the speed section of this document but additional image optimisations are provided below:

2.8.1 Alt Tags

Plugins used: SilverStripe for SEO, Yoast

Description	<p>An Alt tag is a piece of text that accompanies and image on a website and is used to describe what that image is. It has 3 main uses:</p> <ul style="list-style-type: none">• They were primarily designed to increase web accessibility. Users who are visually impaired access the internet through screen reader which will read the alt text allowing the individual to better understand the page.• They are displayed instead of the image if the image cannot be loaded• They provide context to search engines about what the image is, allowing them to be correctly indexed. They can also be used to provide context to the page they are featured on <p>Because of all these reasons it is incredibly important that all images have optimized Alt Tags.</p>
Recommendation	<p>Currently there are 433 images on the OERu website that do not have alt tags. We recommend that these are updated. Digital Hothouse can assist with this.</p>

2.9 Analytics

2.9.1 Record Site Search in Google Analytics

Description	Recording site search in Google Analytics is an invaluable way to understand your customer. It provides an insight into what users are looking for, and the ways in which your current site may not be serving them.
Recommendation	<p>Currently site searches are not recorded in analytics. This means that we are missing out on valuable data that could be used to help OERu.</p> <p>This can be done easily from within Google Analytics. Digital Hothouse can assist in the implementation of this.</p>

2.9.2 Set up cross subdomain tracking

Description	<p>When a company controls one or more subdomains in addition to its main domain it can make proper tracking in analytics difficult. This is because analytics accounts are typically set up to track one domain and its subfolders, while sub domains are viewed as separate entities and need to be tracked in separate accounts.</p> <p>This causes an issue when the users or goals that a company wants to track occur across multiple subdomains. In order to track this kind of interaction cross subdomain tracking needs to be set up. This can be complicated and hard to get right but can have many benefits if implemented correctly.</p> <p>The steps to set up cross domain tracking are as follows:</p> <ol style="list-style-type: none">1. Ensure that you are using universal analytics, not the old class analytics version.2. Set the cookie domain. If universal GA is hardcoded onto your site this has already been done. If it is dynamically inserted through Google tag manager (GTM) you will need to set this up is tag manager:<ol style="list-style-type: none">a. Open GTM. Navigate to the tag you which to edit (the Google Analytics Tag).b. Click to edit the tag
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	<ul style="list-style-type: none"> c. Go to more settings > Fields to set d. Click add field e. Set the field name to “cookieDomian” and the field to “auto”. <p>3. After the cookie domain has been set you will then need to update the referral exclusion list.</p> <ul style="list-style-type: none"> a. Login in to analytics and select the domain that you which to implement cross subdomain tracking on. b. Go to the admin panel c. In the property column navigate to tracking info > referral exclusion list. d. Add referral exclusion for your root domain <p>This will allow you to track subdomains together.</p>
<p>Recommendation</p>	<p>Currently cross subdomain tracking is not being used by OERu. This is necessary to track the impact of all digital efforts. Setting up cross subdomain tracking is imperative. Digital Hothouse can assist in the implementation of this.</p>

3. Audit Action Points

Priority	Action	Section	Who
1	Install Plugins	Plugins	OERu/DHH
1	No index subdomains	Indexations	OERu/ DHH
1	Create sitemaps for each subdomain	Indexation	OERu/DHH
1	Create search console profiles for each subdomain	Indexation	DHH
1	Submit sitemaps to search console	Indexation	DHH
1	Fix duplicates	Duplication	OERu/DHH
1	Canonicals	Duplication	OERu/DHH
1	Canonicals on the Wiki Educator site	Duplications	OERu/ DHH
1	404 Errors	Crawl Errors	OERu
1	Set up cross subdomain tracking	Analytics	DHH

2	Indexation of parameters	Indexation	OERu/DHH
2	Migrate from HTTP to HTTPS on the groups.oeru.com subdomain	Indexation	OERu
2	Browser caching	Speed	OERu

2	Defer JavaScript	Speed	OERu
2	Images	Speed	OERu/DHH
2	Organisational Schema	Schema	OERu/DHH
2	Course Schema	Schema	OERu/DHH
2	Site Links Search Box	Schema	OERu/DHH
2	Alt Tags	Images	OERu/DHH

3	A link to the sitemap is provided in the robots.txt	Indexation	OERu/DHH
3	Open Graph	Schema	OERu/DHH
3	Meta Descriptions	Meta Details	OERu/DHH
3	Title Tags	Meta Details	OERu/DHH
3	Header Tags	Meta Details	OERu/DHH
3	Record site search in google analytics	Analytics	DHH