

Increasing Weapons Transparency Through User Interface Design



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Abstract

The Strategic Concept for the Removal of Arms and Proliferation (SCRAP Weapons) created the Global Weapons Tracking Portal (GWTP), a website that enables users to find open source information on weapons tracking and humanitarian crises. We increased the accessibility and comprehensibility of the GWTP by assessing design elements and implementing a user interface redesign. We created a technical manual for SCRAP Weapons to assist with website administration. We recommend that SCRAP Weapons include more open source organisations, update website content, and implement outreach strategies.

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Executive Summary

In the last 25 years, global military spending has nearly doubled (Lopes da Silva et al., 2021). While conventional arms play an important role in national security, the current magnitude of global stockpiles is excessive, causing a strain on international relations. Nations can establish trust with one another by increasing transparency on the number of arms they possess, potentially mitigating conflict and encouraging global disarmament. Nations have implemented several disarmament treaties and verification tools to commit themselves to peace via cooperation rather than fear. Although these treaties set a baseline for disarmament policy, nations seeking to reduce global arms struggle to agree on specific disarmament legislation.

Accessible information on weaponry is important in allowing the general public to hold nations accountable (Surry, 2006). A lack of accountability from the general public enables nations to neglect their promises regarding disarmament. Modern disarmament efforts rely on the transparency of global weapons data to build trust and facilitate cooperation between nations. Transparency can further the goal of disarmament as parties become more amenable to disarming together. The Strategic Concept for the Removal of Arms and Proliferation (SCRAP Weapons) uses transparency as a tool to shed light on international arms transfers, allowing users to hold governments accountable for disarmament efforts. SCRAP Weapons has undertaken several projects to increase global disarmament efforts, including their Global Weapons Tracking Portal (GWTP) website. Established in 2021 in collaboration with Llewellyn *et al.* (2021) and Tames *et al.* (2021), the GWTP aims to increase global weapons transparency by improving access to open source research tools.

Methods and Findings

Our team's project goal was to increase the accessibility and comprehensibility of weapons tracking data to promote weapons transparency. To accomplish this goal, we focused on three research objectives:

1. Determine the current and potential uses of the GWTP.
2. Organise and clarify the content on the GWTP.
3. Create a technical manual to assist with website maintenance.

Objective 1: Determine the current and potential uses of the GWTP.

To address the first objective, our team conducted semi-structured interviews with seven SCRAP Weapons affiliates. The interviews revealed the GWTP's niche as a starting point for weapons transparency research that leads users to relevant open source information. The website's simplicity benefits its usability, but limits the utility of the website. The GWTP is useful for academics and journalists who are researching open source information.

Objective 2: Organise and clarify the content within the GWTP website.

Our team implemented four different methods to clarify and organise the content on the website: a systematic comparison of advocacy websites, a visual design survey, a user-interface (UI) redesign, and usability testing. We compared the UI elements of 20 advocacy websites and documented exemplary UI elements, unsatisfactory design ideas, and unique aspects. We created mock-ups for the visual design survey based on our notes from the systematic comparison. The visual design survey asked participants to rank each UI element presented to them from least to most comprehensible. The survey revealed the target audience's preferences on key UI elements, guiding our UI redesign.

We redesigned the UI of the GWTP by changing the website theme, page layouts, and colours. We implemented a filter system to improve the navigability of the portal and moved the interactive maps onto their own pages to decrease loading speed. We placed the mission statement at the top of the homepage to clarify the purpose of the GWTP. We made the standout features of the website easier for the user to navigate and understand by adding descriptions and using simple icons. Through usability testing with the SCRAP Weapons team and other IQP students, we evaluated the success of the redesign and tweaked the GWTP in response to participant feedback. We found that the filter system, toolbar, and visual design of the website were appreciated by users, but some titles such as "Open Source Verification" are confusing to inexperienced users. We found that the added descriptions frequently went unread but were helpful in providing context to those who read them.

Objective 3: Create a technical manual to assist with website maintenance.

To sustain long-term operations of the GWTP, we made a technical manual for SCRAP Weapons. In our initial meetings with SCRAP Weapons, their team identified their limited technical experience as a roadblock to website administration. Providing the SCRAP Weapons team with a technical manual allows them to pursue further updates and administrative tasks without having to reach out to prior IQP teams for help. We compiled all written procedures into a uniform document including a table of contents to increase comprehensibility. We found that organising material in the technical manual into clear sections with multiple related procedures and definitions improved its comprehensibility.

Recommendations

We recommend that the SCRAP Weapons team:

- Include more open source investigator organisations and tracking tools to broaden the scope of available resources and help users find relevant information.
- Update organisation descriptions to eliminate errors and improve accuracy.
- Optimise the website's UI by streamlining the map code and assessing mobile and tablet accessibility.
- Update keyphrases and the technical manual periodically.

1. Introduction

On 24 February 2022, several explosions shook the borders of Ukraine as the Russian military started their “special military operation.” An estimated 10,000 armed vehicles invaded Ukraine (Hambling, 2022), leading to the death of over 3,000 Ukrainian citizens as of early May 2022 (Saul, 2022). In addition, the invasion has caused the destruction of an estimated 75.4 billion British pounds sterling of property damage in the same timeframe (Partington, 2022, p. 6). Russia’s excess use of military forces has caused unfathomable human suffering and loss, highlighting the need for modern day disarmament. Disarmament works towards reducing the magnitude of global weapons stockpiles which in turn could limit the severity of military conflicts that may break out between nations such as Russia and Ukraine.

Because modern disarmament depends on trust between nations, nations rely on transparency in global weapons data. By providing accessible weapons data to one another, nations increase their confidence in each other’s commitment to disarmament efforts (“Transparency in Armaments,” n.d.). International reporting mechanisms, open source researchers, and international disarmament treaties pave the way for global weapons transparency. Reporting mechanisms such as the United Nations Register of Conventional Arms (UNROCA) and The United Nations Report on Military Expenditures (UNMILEX) rely on a system of mutual trust wherein nations share information on their weapons data and each strive towards the common goal of disarmament (UNODA, n.d.-a). However, reporting mechanisms suffer from their own shortcomings, namely a lack of participation from member nations. While reporting rates to UNROCA rose throughout the 1990s, they have been steadily dropping since the turn of the century. Reports received by UNROCA peaked at 124 reports in 2001, but the total has since declined to only 39 reports received in 2020 (UNROCA, n.d.). UNMILEX has seen a similar decline in reports, dropping from 42 reports in 2007 to only 7 in 2021 (UNODA, n.d.-b). The Stockholm International Peace Research Institute (SIPRI) attributed the decline in UNROCA reports to “national security concerns and conflict, political will, and administrative capacity” (Holtom et al., 2011). Hence, nations do not give precedence to submitting weapons data to transparency tools such as UNROCA and UNMILEX. Furthermore, the decrease in reports undermines the efficacy of these reporting tools, which hinder their ability to promote

disarmament. Open source investigators specialise in sorting through the data provided by these international reporting tools to compile and standardise data for a broader audience. By analysing publicly available data and presenting findings in a more accessible format, open source researchers facilitate transparency in the arms trade.

Open source research is a first step towards data transparency, but many non-technical audiences may lack the expertise to find the correct sources for their specific needs. To facilitate user-directed research, the Strategic Concept for the Removal of Arms and Proliferation (SCRAP Weapons) created a portal to relevant open source research. SCRAP Weapons uses transparency as a tool to shed light on international arms transfers, allowing users to hold governments accountable for disarmament efforts. SCRAP Weapons has undertaken several projects to increase global disarmament efforts, including the SCRAP Treaty — a framework document for future disarmament legislation — and their webinar series on tracking global arms (SCRAP Weapons, 2022). One of their ongoing projects is the Global Weapons Tracking Portal (GWTP) website. Established in 2021 in collaboration with Llewellyn *et al.* (2021) and Tames *et al.* (2021), the GWTP aims to increase global weapons transparency by improving access to open source research organisations and international reporting tools. By increasing the transparency of weapons tracking data, SCRAP Weapons hopes to reintroduce disarmament into global policy debate. However, the GWTP suffered from a lack of accessibility, impeding the website's goal of increasing weapons transparency. The goal of our research was to increase the accessibility and comprehensibility of weapons tracking data. We achieved this goal by implementing a user interface (UI) redesign to improve accessibility. In addition, we created a technical manual for website administrators to easily manage the website. Through our research, we hope to promote transparency by enabling the public to conduct their own research and hold nations accountable for disarmament efforts.

2. Background

The Global Weapons Tracking Portal (GWTP) website seeks to further disarmament efforts by increasing the transparency of weapons data. This chapter begins with an overview of arms proliferation, then introduces major disarmament treaties. By working through the history of proliferation and disarmament, we establish a historical understanding of issues in the arms trade. Finally, we define transparency in the arms industry to clarify how transparency can promote disarmament. In understanding the importance of transparency in relation to disarmament, we identify the need for weapons transparency tools, such as the GWTP.

2.1 Arms Proliferation

Armed conflict has changed drastically in the last 100 years. The rapid growth in warfare technology during the early 20th century created weapons that caused widespread devastation. World War I saw the deployment of numerous technological advancements and inventions, notably heavy artillery, tanks, and chemical weapons (National Air and Space Museum, 2017). Aerial bombing, specifically carpet bombing, was employed extensively during World War II. The devastation from the rise in warfare technology was no more evident than when the United States dropped two nuclear warheads on Hiroshima and Nagasaki in August 1945 (Tomonaga, 2019). The warheads instantly reduced the two cities to ruins, leading to the immediate death of an estimated 424,000 residents (Barnaby & Holdstock, 1995).

Following World War II, conflicting ideologies between the United States and the Soviet Union caused global tensions to rise to new extremes, sparking the Cold War. While direct conflict never broke out between them, these nations stockpiled tens of thousands of nuclear warheads to bolster their defences in the event of a nuclear war. At the peak of the Cold War, an estimated 69,000 nuclear warheads were active throughout the world, enough to wipe out the entire population hundreds of times over (Norris & Kristensen, 2010). The Cold War ushered in an age during which nations relied on vast military arsenals to maintain their safety. Nations focused their efforts on deterrence, a policy that relies on exerting pressure on other nations through displays of militaristic power (Pentz, 1998). Nuclear deterrence locks nations in a constant standoff where any action against another nation could cause mutual assured destruction (Buzan, 2018). The arms race between the United States and the Soviet Union reinforced these

ideas, as nuclear deterrence emphasised tension and fear as national security measures (Buzan, 2018). Consequently, Ronald Reagan's peacetime military buildup throughout his term was the largest in history. Because Reagan's administration felt uneasy during the arms race, the U.S. fell into debt to sustain their defence spending (Markel *et al.*, n.d.). His Secretary of Defense, Casper Weinberger, wrote that "the budget is not sufficient for [the United States'] strategic needs. It is clearly inadequate to support [their] widespread commitments in peacetime" (*Department of Defense Appropriations for Fiscal Year 1982*, 1981). These military expansions materialised the fear felt around the globe yet did little to quell it.

In the wake of the Cold War, the international community agreed on the impracticality of stockpiling thousands of nuclear warheads and started disarming. Since then, the global stockpile of warheads fell from 69,000 to an estimated 13,080 warheads by the end of 2021 (SIPRI, 2021). At the same time, peacetime military spending increased steadily. In the last 25 years, global military spending has nearly doubled (Lopes da Silva *et al.*, 2021). In 1996, global military spending was an estimated \$1.1 trillion, whereas, in 2021, global military spending passed \$2 trillion for the first time in history (SIPRI, 2022). The United States — the country with the largest military spending globally — has stockpiled an estimated 50,000 missiles and missile launchers, as well as 8,000 armoured combat vehicles, 4,096 large artillery systems, and 2,296 aircraft (UNROCA, n.d.). On top of the massive weapons stockpile, the U.S. imported millions of handheld weapons in 2020. While a certain quantity of conventional arms may improve national security, the current magnitude of global stockpiles is excessive (UNROCA, n.d.).

While other nations have less expansive stockpiles than the United States, their involvement in the import and export of conventional weapons contributes to global proliferation. Major importers include India, Qatar, Saudi Arabia, Egypt, and Australia (Wezeman *et al.*, n.d.). Major exporters include the United States, France, Russia, Italy, and China. These five major exporters of arms account for over 75 percent of all exports of arms from 2014 to 2018 (SIPRI, 2018). The largest major importers account for 35 percent of imports. On average, nations spend anywhere from 25% to 50% of their annual military spending on the procurement of weapons as well as maintenance and operational costs associated with their weapons stockpiles (United Nations, n.d.). The increase in the amount spent globally on the

stockpiling of arms poses the risk of starting humanitarian crises. As nations continuously increase the size of their weapons arsenals, global war poses an ever-greater threat.

2.2 A History of Disarmament Efforts

The global excess of weapons has strained international relations and focusing on disarmament efforts can help to ease these tensions and the threat of war. Disarmament is the act of a nation reducing its weapons stockpile and military presence. It works to de-escalate conflict between competing nations. By instilling more confidence regarding the number of arms, nations can establish trust between one another, allowing for the mitigation of conflict. Disarmament also works to limit the negative environmental and health impacts of any potential conflicts. Conventional arms such as tanks, boats, planes, and other heavy artillery leave a vast carbon footprint, contributing to climate change and other environmental issues (Ruff, 2022). The World Health Organization gathered a group of experts to review the health and health services of those affected by nuclear war. The experts determined “that it is impossible to prepare health services to deal in any systematic way with the catastrophe resulting from nuclear warfare, and that nuclear weapons constitute the greatest immediate threat to the health and welfare of mankind” (Ruff, 2022). Not only would the radiation from the nuclear weapons cause severe health issues, but available health services would be unable to accommodate for such injuries along with explosion and heat injuries from the nuclear weapons used during such horrific warfare.

Nations have implemented several disarmament treaties and tools to commit themselves to peace via cooperation rather than fear (see Table 1). Each one had its own role to play in creating an environment where states trust one another enough to agree to disarm. Early treaties like the Geneva Protocols, SALT, and START treaties had a preliminary influence on how disarmament policy developed by limiting certain weaponry and requiring reports on stockpiles. Although treaties set a baseline for disarmament policy, there are certain issues within these treaties that limit their success. Policy analysts have consistently critiqued the poor implementation of verification measures as an issue hindering disarmament policy in multiple treaties (Neuneck, 2019). Lack of verification undermines the accuracy of reported data, resulting in a less trustworthy exchange of information between nations. Another issue regarding disarmament policy that arose is the breadth of agreed-upon guidelines. Treaties like SALT I

highlighted the negative effect of narrow regulations that only limited certain forms of weapons, as nations could bypass these limitations by producing weapons that were not directly restricted by the treaty. Furthermore, while the treaties worked to establish limitations on the quantity of weapons, they did not halt technological advancements that worked to increase the lethality of these weapons (Friedberg, 1978).

Name of Treaty	Year Entered Into Force	Number of Signatory States	Scope of Treaty	Gaps within Treaty
Geneva Protocol	1928	36	Prohibits the deployment of chemical and biological weapons.	Allows for their production, development, and stockpiling of chemical and biological weapons.
Treaty on Non-Proliferation of Nuclear Weapons (NPT)	1970	93	<p>Non-nuclear weapons states will not acquire nuclear weapons</p> <p>Nuclear weapons states will pursue disarmament</p> <p>All states may access nuclear technology for peaceful purposes</p> <p>Parties meet every five years to review the treaty's implementation and set an agenda for the next five years</p>	<p>The treaty only requires the pursuit of negotiations on good faith. No established way to verify compliance.</p> <p>There are no deadlines given for disarmament efforts.</p>
Strategic Arms Limitation Talks (SALT) I	1972	2 (United States and USSR)	<p>Established an Interim Agreement to cap the numbers of ballistic missiles each country could hold.</p> <p>Halted the construction of all intercontinental ballistic missiles (ICBM).</p>	<p>Many strategic arms were not specified in the treaty, leading to a buildup in stockpiles of these unregulated arms (Kimball, n.d.).</p> <p>Did not halt technological</p>

			The treaty permitted verification through national technical means (NTM) – means of verification decided upon by individual nations.	improvements which increased the lethality of these weapons (Friedberg, 1978).
Intermediate-Range Nuclear Forces (INF) Treaty	1988	2 (United States and USSR)	Required the US and Soviet Union to eliminate all land-based intermediate and shorter-range missiles in addition to their associated launchers. Banned all production and flight-testing of these missiles (Boren, 1988). Both parties agreed to exchange data and notify each other through Nuclear Risk Reduction Centers for verification. Includes specific procedures for weapon elimination and test site inspection (Boren, 1988).	Lacked compliance methods.
Strategic Arms Reduction Treaty (START) I	1991	2 (United States and USSR)	Set a limit of 6,000 deployed warheads attached to ICBMs, submarine launched ballistic missiles (SLBMs), and heavy bombers, as well as a limit to the total number of these missiles to 1,600.	Both parties could still grow their stockpiles of weapons not covered by the START treaties (Geller, 2020)
New Strategic Arms Reduction Treaty (New START)	2009	2 (United States and Russia)	Set a new limit of 1,550 deployed warheads and 700 deployed ICBMs, SLBMs, or heavy bombers	Both parties could still grow their stockpiles of weapons not covered by the START treaties (Geller, 2020)
Treaty on the Prohibition of Nuclear Weapons (TPNW)	2021	86	A comprehensive ban of nuclear weapons, prohibiting everything from the development to the use and possession of said nuclear weapons (NTI, 2022).	

Table 1. Disarmament treaties. The table above displays established disarmament treaties that encourage nations to report weapons data. The information displayed above includes the disarmament treaties’ names, date of establishment, number of signatures, description of the treaty, and gaps in the treaty (if any).

One of the more effective treaties that currently acts as the standard for nuclear disarmament policy is the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). The NPT aims to further nuclear disarmament and prevent nuclear proliferation by encouraging cooperation between parties to the treaty. In addition, the NPT calls for a recurring conference every five years wherein the parties to the treaty examine the effectiveness of their disarmament efforts (Treaty on the Non-Proliferation of Nuclear Weapons, 1970). With 190 signing parties, the NPT has the greatest global participation of all disarmament treaties and emphasises the importance of cooperation between nations (NTI, n.d.). The regulations put in place by the NPT as well as the SALT and START treaties have lowered the number of active nuclear warheads from their peak of 69,000 to an estimated 13,080 by the end of 2021 (SIPRI, 2021).

Today, nations seeking to reduce global arms struggle to find common ground within disarmament legislation. The Treaty on the Prohibition of Nuclear Weapons (TPNW) was first put forth in 2015 as a comprehensive ban of nuclear weapons, prohibiting everything from the development to the use and possession of said nuclear weapons (NTI, 2022). However, the uncompromising nuclear restrictions caused all nine nuclear weapons states to boycott the signing as well as all US-allied nations. Furthermore, the conflicting ideologies between the NPT and the TPNW has led to a lack of cooperation internationally, hindering the success of each treaty. Ultimately, while most nations express interest in disarming, there is a lack of incentive for nations to implement restrictions.

2.3 Building Trust through Weapons Transparency

Transparency provides public pressure and incentive for disarmament. Modern disarmament efforts rely on the transparency of global weapons data to build trust and facilitate cooperation between nations. Transparency is generally defined as the availability of information regarding a group or organisation, designed as an exchange of information for trust between parties. It is achieved through the voluntary publication of information between an organisation and the public. Nations recognize transparency as a necessity in the modern age (Neuman & Calland, 2007). By establishing trust between parties, transparency can further the goal of disarmament as parties will be more amenable to disarm together.

The Stockholm International Peace Research Institute (SIPRI), a leading organisation in standardising weapons data for general audiences, believes that building transparency and trust between nations must start with easy and open access to a nation's weapons information. If nations lack the necessary information for transparency, the general public is unable to properly judge nations for their disarmament efforts (Surry, 2006). In turn, the general public is unable to hold these governing bodies accountable for disarming. A lack of accountability enables nations to neglect their promises regarding disarmament. Therefore, providing accessible information is important in maintaining accountability between nations and the general public.

The key to transparency lies in accessible information; therefore, legislation for access to relevant information is a fundamental aspect of transparency. The UN affirmed the right to information on an international scale in Article 19 of the Universal Declaration of Human Rights in 1948 (United Nations, 1948). Many nations recognize the UN's declaration as the modern catalyst for increased recognition of the right to information that prompted numerous Access to Information (ATI) laws. As of 2021, 132 nations have passed ATI legislation, granting citizens the right to access information (Kuswadini & Aoutail, 2021). As a result, the amount of information accessible to the general public is greater than ever before, allowing for new levels of accountability.

The increase in publicly available information has allowed open source investigators to compile and analyse weapons data to hold nations accountable. Open source investigators conduct research on the state of the arms industry by collecting information that is openly accessible to the public. Afterwards, they analyse the collected arms data to release reports and policy proposals to both the public and nations in an attempt to strengthen disarmament efforts. Since weapons information is often hard for the average person to comprehend, open source investigators interpret the data into a form that is digestible to the general public. For example, SIPRI translates the arms trade financial data to a standard currency so that trade data from various nations is easily comparable. Open source research illuminates the current state of arms stockpiles and disarmament efforts for the general public. Therefore, to ensure validity in the reports and proposals created by open source investigators, nations need to increase the transparency of their weapons data.

Access to weapons information is paramount in creating a state of accountability between the general public and nations. Open source investigators interpret accessible information to ensure the general public can understand how nations are contributing to the arms industry. Greater transparency of weapons data and accountability of disarmament efforts between nations builds trust. Nations are more likely to put an emphasis on disarmament if they know that other nations are disarming with them. Therefore, an increase in visibility of a nation's disarmament efforts promotes similar disarmament efforts from other nations.

3. Methods

Our project goal was to increase the accessibility and comprehensibility of weapons tracking data to promote weapons transparency. To accomplish this goal, we employed several methods that fell under three research objectives:

1. Determine the current and potential uses of the GWTP.
2. Organise and clarify the content on the GWTP.
3. Create a technical manual to assist with website maintenance.

Through our first objective, we determined the niche filled by the GWTP. To complete our second objective, we identified accessible UI design features and implemented them into the GWTP. Our third objective was to convey technical instruction to the SCRAP Weapons team by creating a technical manual.

3.1. Objective 1: Determine the current and potential uses of the GWTP.

The GWTP aims to connect those with an interest in weapons tracking with relevant open source research. Members of the target audience — such as journalists, policymakers, and academics — have a baseline interest in weapons tracking but may not have the technical skill or knowledge necessary to begin researching. To understand how the GWTP contributes to the weapons transparency field and how it benefits the target audience, the following questions guided our research:

- *How do users interact with the website?*
- *What value do users find in the website?*
- *What tools do users find most beneficial?*

We answered these questions by conducting semi-structured interviews with SCRAP Weapons affiliates. As a result, we gained insightful opinions on how the GWTP could be improved to achieve its highest potential as a tool for transparency.

Our team interviewed seven SCRAP Weapons affiliates which included researchers, academics, and journalists. Speaking with interviewees from various fields allowed us to gain

different perspectives on the GWTP's functionality. We conducted all interviews over Zoom, which allowed us to record the interviews to transcribe at a later point for analysis. Each interview involved a 30-minute discussion guided by a list of sample questions that fell under four separate categories. These categories worked to establish rapport with our interviewees, gain first impressions of the website, understand the value of the website to our audience, and learn how we can engage with our audience through outreach strategies (see Appendix A for sample questions). The free-flowing structure of these interviews allowed us to focus each discussion on suitable questions, which gave our interviewees the space to expand ideas and provide longer responses. At the conclusion of the interviews, we compared answers from the various interviewees and noted the common trends among responses. We also highlighted answers we thought were unique and helpful and took note of feedback that may be relevant for the future of the GWTP.

3.2. Objective 2: Organise and clarify the content on the GWTP.

Initial consultations with previous IQP teams and the SCRAP Weapons team indicated that the GWTP was unintuitive and confusing, leading us to redesign the website's user interface (UI). Through redesigning the UI, we made the purpose of the website apparent to anyone visiting it regardless of their knowledge of the arms field. Moreover, we made the standout features of the website — primarily the database of open source investigators, tracking tools, and the interactive maps — easier for the visitor to navigate and find the most pertinent information. We outlined a series of methods to determine the direction for the UI redesign based on our research questions:

- *How can content be made more accessible?*
- *How does the presentation of content affect user experience?*

Our approach to redesigning the GWTP involved gathering opinions on UI elements, completing the redesign, and assessing the success of the redesign. Our first method was a systematic comparison of similar advocacy websites, which we used to generate ideas of user-friendly UI elements. Our second method was a visual design survey, which we used to understand the preferences of our audience on key UI elements. We implemented a UI design

based on the results of this survey and performed usability testing to evaluate whether the updated website was intuitive and accessible.

To gain a deeper understanding of how UI design affects the accessibility and usefulness of websites, we compared the UI elements of 20 advocacy websites (see Appendix B for list of advocacy websites). Before making this comparison, we created a list of specific UI elements we wanted to focus on such as mission statements, icons, and menus (see Appendix C for criteria list). We reviewed each website individually and noted design ideas based on our criteria list. We noted common themes between the advocacy websites as well as different design variations on the same UI elements. Afterwards, we condensed the notes to succinctly showcase exemplary UI elements, unsatisfactory design ideas, and unique aspects. Through the systematic comparison, we acquired a better understanding of which UI elements are ubiquitous in advocacy websites. Our findings were subjective, as we were the only participants. Nevertheless, our comparison generated ideas for UI elements on the GWTP and established a guideline for the UI redesign.

We created a UI design survey to gather an extensive set of perspectives on UI elements. We sent the survey to the SCRAP Weapons team and SOAS University of London students, as well as the students enrolled in the London IQP and HUA project centres, and received 18 responses. The survey contained six sets of UI elements (see Appendix D for design elements). For each UI element, we produced multiple distinct mock-up designs in Elementor to showcase variations of each UI element. Although mock-up images provide a base for accessible design, they do not account for user interaction. As such, the survey results only reflected the surface-level accessibility of UI elements.

Each question asked participants to rank a set of UI designs from least to most comprehensible. One concern was that participants may respond based on other elements within each design. To limit this issue, we kept all remaining content consistent so that the main design aspect was in focus for each mock-up image. In addition, each question had an optional comment section where participants could elaborate on the mock-up designs, allowing us to identify unique insights. The comments also allowed us to capture responses that may be skewed by personal biases and adjust our analysis of the rankings accordingly.

Based on our findings from the systematic comparison of advocacy websites, visual design survey, and semi-structured interviews, we determined the UI design elements necessary to complete an efficient UI redesign. We noted the preferred UI elements from the prior methods and applied them to the GWTP. We reorganised the content on the website to improve navigability and added more detailed descriptions to improve comprehensibility. In addition, we added a filtering system to the database of open source verification tools using the *Search and Filter* and the *Custom Layouts* Wordpress plug-ins. These plug-ins allowed us to host all organisation posts on one page on the website and select filter categories to find a specific organisation. We edited the UI elements of the website using the *Elementor* plug-in which allowed us to easily and effectively update the UI for the website. Finally, we used the *All in One SEO* plug-in to update the website's visibility on search engines such as Google.

To determine if the GWTP was more user-friendly and intuitive, we conducted usability testing in which users from our target audience completed five general tasks on the website (see Appendix E for tasks). We gathered four participants from the London IQP cohort as well as two volunteers from SCRAP Weapons. We provided each participant with five tasks, each requiring them to use the GWTP's main features. We observed how quickly users completed tasks and noted which steps participants had difficulty with. After each question and at the end of usability testing, we gathered verbal feedback on participants' experience and how user-friendly they believed the UI elements were. We gauged the effectiveness of our UI redesign and ways we could further improve the website to maximise its usability in the future. However, since we did not perform usability testing before redesigning the website, we cannot compare the difference in accessibility between both versions of the website. Moreover, we performed usability testing with a small sample size which limited the number of perspectives on the user experience.

3.3. Objective 3: Create a technical manual to assist with website maintenance.

Our final objective focuses on increasing the longevity of the GWTP. SCRAP Weapons plans to continue the GWTP as a key project for their advocacy work. As such, we wanted to ensure that the SCRAP Weapons team could keep up with all necessary website operations. The following questions guided our research:

- *What procedures must the SCRAP Weapons team complete to update and maintain the website?*
- *How do we convey complex technical information to those with limited technical knowledge?*

To sustain the long-term operations of the GWTP, we made a technical manual to distribute to the website operators. In our initial meetings with SCRAP Weapons, their team identified their lack of technical experience as a roadblock to website administration. Providing the SCRAP Weapons team with a technical manual allows them to pursue further updates and administrative tasks without having to re-learn the procedures. Our team compiled a set of specific tasks and procedures that were self-generated from our experience redesigning the UI of the GWTP. We met with the SCRAP Weapons team to review the set of tasks and determined additional procedures to record in the technical manual. We worked iteratively to produce beneficial materials for the SCRAP Weapons team. In a given procedure, we provided detailed steps along with visual aids to complete tasks within the GWTP. To evaluate the accuracy of our writing, we emailed the procedures to the SCRAP Weapons team and asked them to perform the given tasks. After reviewing the written procedures, members of SCRAP Weapons provided feedback during weekly meetings. We created a final document with consistent formatting, easy-to-read fonts, and visual aids where necessary (see Appendix F for technical manual). We provided the SCRAP Weapons team with a digital copy of the completed manual so that they may refer to it whenever they need guidance. As the website requires further development, the SCRAP Weapons team may need to update the technical manual to incorporate new tasks and procedures.

4. Findings

We effectively increased the accessibility and comprehensibility of weapons tracking data through the Global Weapons Tracking Portal (GWTP). Our research focused on assessing the accessibility and comprehensibility of the original GWTP design, identifying beneficial UI design formats, and evaluating the efficacy of the redesign. Our findings fell into three major categories: identifying the website audience and purpose, directing the UI redesign, and supporting the technical manual.

4.1. The Value of the GWTP

Through our interviews with affiliates of SCRAP Weapons, we determined how well the GWTP achieved its purpose as a portal to open source weapons tracking data. Interviewees shared their opinions about the key details they noticed on the website. Our interviews revealed the GWTP's value as a tool for researchers, academics, and journalists. As such, we kept the simplicity of the website to maintain its comprehensibility.

Of our seven volunteers, three mentioned that the GWTP would be useful for academics and journalists who are researching open source information. Additionally, four of our volunteers believed that they would find the GWTP helpful to identify organisations they were previously unaware of. Specifically, Alexandra Kuimova — a researcher for SIPRI — noted that the website would be a great tool for “diving into the subject, especially when you don't know where to start.” These comments reinforced our decision to target individuals with limited knowledge on open source research tools who want to conduct their own weapons tracking research.

Several interviewees noted the niche filled by the GWTP. Four of our seven interviewees pointed out that the GWTP highlights other organisations rather than presenting unique data. Martin Butcher — a peace security and international humanitarian law policy advisor for Oxfam — noted that “the main benefit of [the GWTP] as a portal is it's pretty comprehensive. Other people have got their thing...but the fact that this gives you a one-stop-shop to go looking for people that do weapons tracking all the time, that's very helpful. That's a good feature.” Moreover, Julia auf dem Brinke — co-founder of Corruption Tracker — mentioned that she believes the GWTP is collaborative and support-oriented. Throughout our interviews, we found

that the volunteers recognised the GWTP as a beneficial research tool. The GWTP specifically holds value as a portal for our target audience; as such, we implemented design decisions that streamline the navigability of the portal.

Our interviews revealed that users may misconstrue the purpose of the GWTP. While the SCRAP Weapons team designed the website as a portal to open source research organisations, four out of our seven interviewees believed that SCRAP Weapons intended to present original weapons tracking research through the GWTP. We observed that the original website title — Global Weapons Tracking Service — could imply that the website actively tracks weapons transfers. To resolve this confusion, we updated the website’s name to Global Weapons Tracking Portal to reflect its purpose. Furthermore, we have highlighted the purpose of the website higher on the website’s home page and made it more legible by increasing the font size.

Overall, the interviewees found the GWTP to be simple. While one interviewee found the simplicity beneficial for usability, Martin Butcher noted that the simplicity of the GWTP limited the efficacy of the website. Furthermore, five of the seven interviewees expressed a need for more context throughout the website. We clarified instructions throughout the pages, allowing users to utilise the available resources more effectively. In addition, improved organisation across the website and a clearer mission statement would allow users to understand how to use the GWTP.

4.2. UI Redesign

The bulk of our research related to redesigning the GWTP’s UI. We gleaned design suggestions from our systematic comparison of advocacy websites, visual design survey, and semi-structured interviews. Based on our findings from the previous methods, we implemented changes to the UI to create a more accessible website. To assess the successes and failures of the redesigned UI, we conducted usability testing.

4.2.1 Design Philosophy

Through our systematic comparison of advocacy websites, our team discovered design ideas that improve website accessibility. We found that simple designs for UI elements were far more comprehensible than complex designs. Throughout our comparison, we preferred sans-serif

fonts and sparing usage of bolding. In addition, we found that simple graphics conveyed messages better than complex images. From the quick-links section of the visual design survey, five commenters noted a preference for simple icons while four commenters expressed their distaste for using images. We concluded that the icons were clearer and less distracting to users.

Despite the preference for simple graphics, we found the GWTP too simplistic overall. Through the systematic comparison, we found websites that provide definitions and explanations of complex topics more comprehensible. For example, the United Nations Institute for Disarmament website contains a glossary page to ensure that less-experienced users can understand the information presented on the website. Furthermore, participants in the visual design survey found the quick-links design containing descriptions more comprehensible than the other two designs. While the quantitative data indicates a preference towards the two non-descriptive designs, four comments noted that the design with descriptions was the most comprehensible but felt clunky. Including more detail on the GWTP allows users to better understand the website's usage. By balancing simple UI elements with descriptive text, we created a more intuitive UI for the website.

One last design element we found to be crucial was a clear and distinct mission statement that caught the audience's attention seconds after entering the website. During our systematic comparison, we noticed that many advocacy websites display their mission statement directly at the top of their website along with their title and logo. We believe this mission statement placement is common practice because it allows the user to immediately understand the website's purpose and its applications. In the visual design survey, participants ranked the design with the mission statement immediately below the website title the most comprehensible of all three designs. Furthermore, a specific criticism of another mockup mission statement was that "the mission statement being underneath [an image] may lead to it going unread." Not only should the mission statement stand out, but it should also be clear and concise in its wording. Ruth Rohde — a co-founder of Corruption Tracker — noted that the website's purpose was "not immediately clear unless you actually spend time reading the first paragraph... You have two seconds to capture the person and for that person to see if it's useful for them." To address the need to capture the audience's attention, we shortened the introductory blurb on the homepage and increased the text size for the mission statement to emphasise the website's purpose

immediately. As seen on Figure 1, we also moved the mission statement higher on the homepage to be more apparent to users.

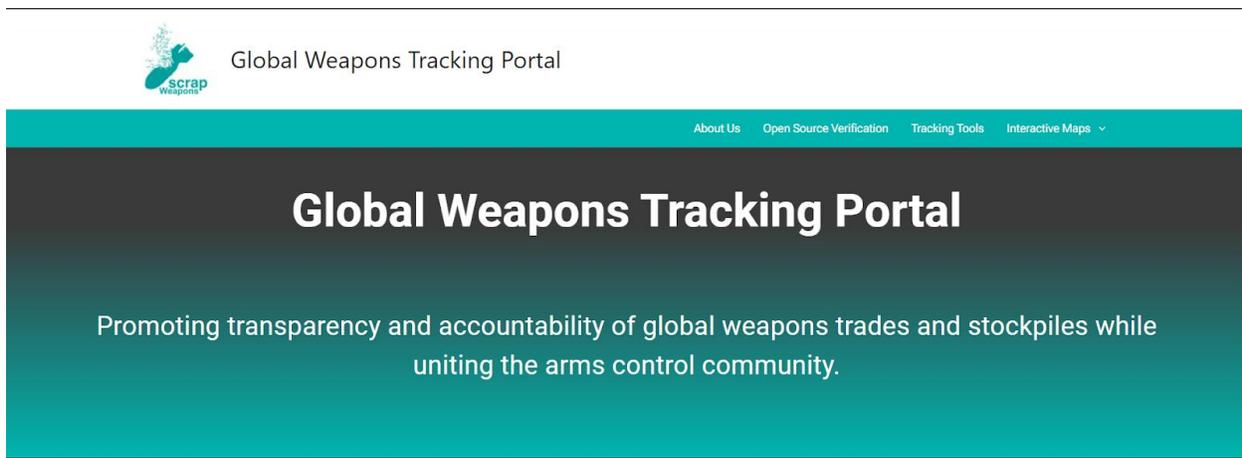


Figure 1. Top of the GWTP Homepage

4.2.2 Design Implementation

Based on our findings from the semi-structured interviews, systematic comparison of advocacy websites, and visual design survey, we implemented changes to the organisation of content, navigation tools, and visual design of the GWTP. The original website split the organisations into four categories: Tracking Weapons, Tracking Tools, Human Rights, and Think Tanks. Members of SCRAP Weapons and several interviewees noted that many organisations fall within multiple categories. To solve the categorisation issue, we put all of the organisations and projects into one filterable database, which allowed us to place organisations within multiple categories. Users could then access the Open Source Verification page to find any organisation they may need using the filters or search bar. We kept the Tracking Tools within their own page as they serve a narrower purpose than the other organisations. In addition, we found that the interactive maps — originally found on the bottom of the homepage — hindered the homepage’s loading speed and often went unnoticed due to their placement. Originally, we intended to include all the maps within one map page; however, some of the maps did not load properly in the singular map page. Instead, we placed each map on its own individual page and linked to the individual maps on the map landing page. The final quick links on the GWTP homepage included Open Source Verification, Tracking Tools, and Interactive Maps (see Figure 2).

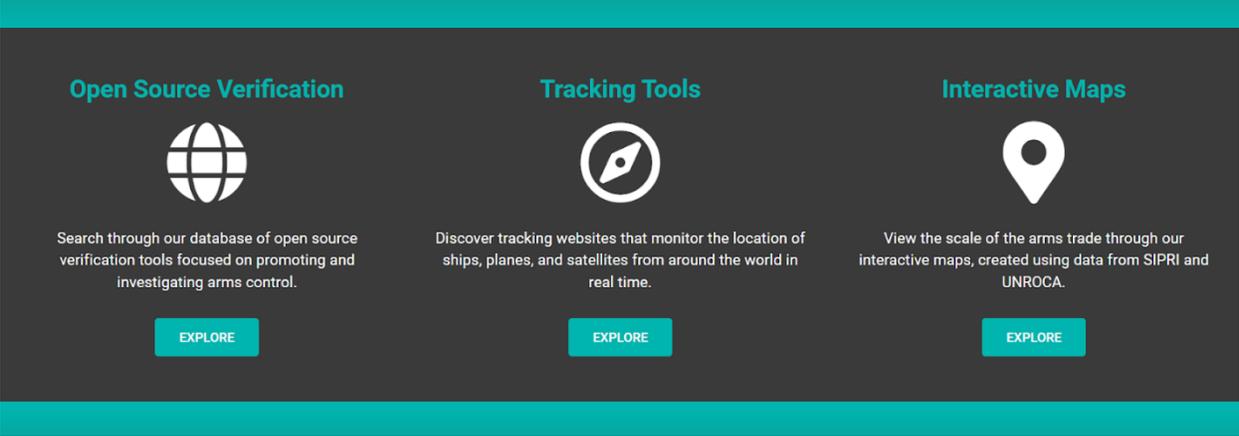


Figure 2. Quick-Links on the GTWP Homepage

In our systematic comparison of advocacy websites, we found that toolbars are the most common and most effective mode of website navigation; furthermore, we found that toolbars were more helpful when they were less cluttered and made effective use of drop-downs. We removed the navigation wheel in favour of a toolbar containing links for the following pages: About Us, Open Source Verification, Tracking Tools, and Interactive Maps. The toolbar also contains drop-downs under the Interactive Maps link for each individual map page (see Figure 3).

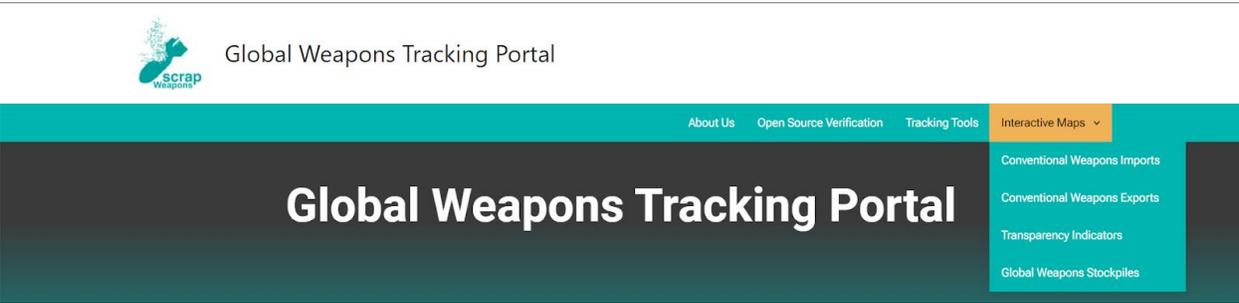


Figure 3. GWTP Toolbar

The GWTP originally included external links to the SOAS homepage and Oxfam homepage within the menu. We found these links confusing as they had no context or description and pulled users away from the GWTP. To resolve the confusion, we removed the SOAS and Oxfam links from the toolbar and mapped them to buttons in the About Us page instead. In the About Us page, we provided descriptions of each organisation’s involvement in the GWTP

project to provide context for the links. We also replaced the link to the SOAS homepage with a link to the SCRAP Weapons homepage to describe the website contributors more accurately.

Members of SCRAP Weapons informed us that they originally wanted the GWTP to use light fonts on a dark background. Additionally, three of our interviewees recommended using the SCRAP Weapons colours more effectively throughout the website. Based on the feedback we received, we changed the website's background colour to a dark grey and incorporated the SCRAP Weapons teal throughout the website for titles, buttons, and the toolbar. Additionally, the original GWTP was text-heavy. We solved this issue by featuring more images within the Open Source Verification filter page — see Figure 4 — and next to each link in the Tracking Tools and Interactive Maps pages. Finally, based on our findings from the systematic comparison of advocacy websites and visual design survey, we used sans serif fonts throughout the website. Sans serif fonts are simpler and cleaner, making the text less overwhelming to look at.

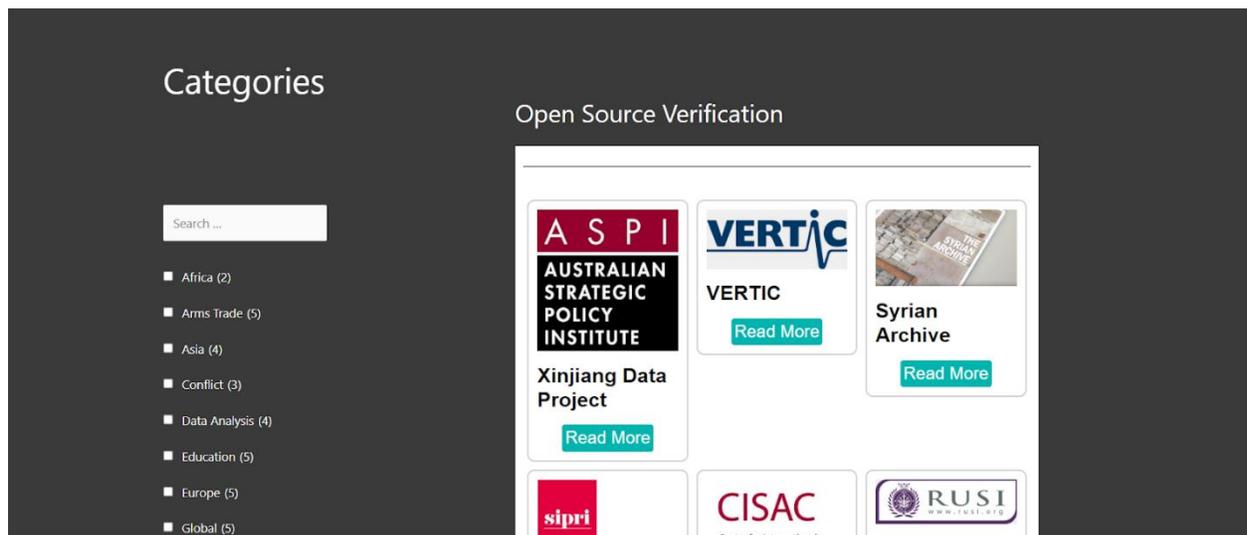


Figure 4. Open Source Verification Page

To improve the website's accessibility, we implemented search engine optimization (SEO). The *All in One SEO* plug-in scored keyphrases for the GWTP based on multiple factors such as the length of the keyphrase and whether the keyphrase was found in the page's title, introductions, the URL, or the search result description. Keyphrases are then scored between 1 and 100 based on the number of factors they meet. Appendix G provides information on the

scores of different keyphrases tested within the *All in One* SEO plug-in. Shorter keyphrases typically scored higher as they were more likely to appear throughout the website. For example, on the Open Source Verification page, the shorter term “open source” was found in the page’s introduction, URL and search engine result title, scoring it an 85. “Open Source Verification” — the page’s title — scored a 71, as it was found only in the search engine results title and URL. The term “open source tracking” was found in no trackable locations, scoring it a 46. One limitation of SEO is the efficacy of individual keyphrases decreasing over time. The volatility of current events causes advocacy websites – such as the GWTP – to shift their content. Therefore, keyphrases also have to shift with current events to maintain relevance. To increase the longevity of the GWTP, we showed the SCRAP Weapons team how to use the *All in One* SEO plug-in to update the keyphrases as needed.

4.2.3 Design Assessment

We tested the merit of our redesign by completing usability testing with two members of the SCRAP Weapons team and four members of the IQP cohort. While we were successful in creating a visually appealing website with simple navigation, we failed to simplify weapons tracking information for those not involved in the field. While our two SCRAP Weapons participants knew where to look due to their prior exposure to the website, three of the four student volunteers who had no prior knowledge on weapons tracking had trouble discerning which pages on our website held which information. For example, three students had significant trouble understanding what Open Source Verification meant and which information was held on the page. Moreover, while the Interactive Maps were easy to find, discerning the information in each map was difficult. Four of our six volunteers, including three students, initially clicked on the wrong map. Additionally, two of our volunteers read out data from the wrong maps as their answer for the task. Many of the volunteers skipped over all descriptions in the website, which may have been helpful for finding the correct information. Three student volunteers noted that the GWTP would be much more intuitive for those who have more experience with global weapons tracking; additionally, two of the students noted that navigating the website for the later tasks was much simpler since the students had time to explore the website and orient themselves.

4.3. Technical Manual

The SCRAP Weapons team clarified their limited technical experience at the start of our research. To provide guidance to the SCRAP Weapons team in understanding how to complete administrative tasks on the GWTP, we created a technical manual. We brainstormed a list of concepts and procedures to include in the technical manual based on the assumption that the SCRAP Weapons team had little to no familiarity with Wordpress, Elementor, or Python. We presented our outline of procedures to the SCRAP Weapons team, who provided us with further ideas and procedures they would like us to add to the manual.

Providing context for key procedures improved comprehensibility. One member of the SCRAP Weapons team noted that she found the descriptions of each concept beneficial for her understanding. After previewing sample sections of the technical manual, members of SCRAP Weapons noted that the procedures were clear and comprehensible. The map procedures — the most technically complex information included in the manual — were the most troublesome for the SCRAP Weapons team. However, they clarified that the issue stemmed from their lack of coding experience rather than the procedures themselves. One member of SCRAP Weapons noted that the visual aids and definitions within the map procedures made them easier to follow, but that the process required much more focus than other procedures.

We compiled all written procedures into a formatted manual, including a table of contents to increase the comprehensibility of the overall document. We found that organising material into clear sections with multiple related procedures improved its comprehensibility. The final document was split into several subsections: Wordpress dashboard, Elementor, Pages, Posts, Templates, Organisation posts, Previews, Themes, Menus, Sidebar, Plugins, Backups and Restoration, GitHub, Maps, and Additional CSS (see Appendix G for the technical manual).

5. Conclusions and Recommendations

As global weapons spending increases annually, the threat to human life becomes more prevalent. Improved disarmament efforts may help to lessen the threat posed by arms proliferation. SCRAP Weapons aims to increase the transparency of weapons tracking data in order to hold nations accountable for their participation in disarmament efforts. To aid SCRAP Weapons in their mission, we improved the usability of the Global Weapons Tracking Portal (GWTP) to bolster its value as a research tool. Through increased transparency of weapons tracking data, we believe the website can contribute to holding nations accountable for their disarmament efforts. We increased the accessibility of weapons tracking data on the website through a user interface (UI) redesign. A systematic comparison of similar advocacy websites, a visual design survey, and interviews with journalists, researchers, and academics influenced the redesign. Moreover, we created a technical manual for the SCRAP Weapons team to assist with future updates and expansions of the GWTP.

5.1. Research Summary

Through semi-structured interviews with journalists, academics, and researchers, we reaffirmed that the GWTP is an effective research tool. Individuals with little knowledge on the weapons tracking field may visit the website as a starting point for their research endeavours, while more experienced users can use the portal to explore unfamiliar organisations. The interviews revealed that users frequently misconstrued the website's purpose as an active weapons tracker rather than a database of weapons tracking organisations. We changed the name of the website from Global Weapons Tracking Service to Global Weapons Tracking Portal to better reflect the website's function, and we moved the website's mission statement higher on the homepage to orient the user upon opening the website. To improve the clarity of the website's purpose, we rewrote the mission statement to be a single sentence and increased the font size.

We determined a design philosophy that best amplified the purpose of the GWTP through a systematic comparison of advocacy websites and a visual design survey. We determined that simple icons convey key concepts more effectively than complex images. By combining simple icons with clear and concise descriptions, we increased the comprehensibility of the website's UI. Additionally, we found that the original UI of the GWTP was difficult to navigate. To make

the UI more intuitive, we implemented a filter system where users could select categories or enter search terms to find relevant open source verification tools. We also increased the navigability of the website by adding appropriate context to each page and button. To assess the quality of our redesign, we conducted usability testing. Usability testing revealed that we created a visually understandable and easily navigable website; however, we failed to provide effective context for inexperienced users. To improve comprehensibility, future teams should emphasise the descriptions for the quick links and maps. Additionally, optimising the filter system would help with portal navigation.

Early in the project, the SCRAP Weapons team informed us of their lack of technical experience. To assist them in all future website development, we created a technical manual. The technical manual included all information necessary for updating, maintaining, and developing the website. We split the technical manual into several subsections, including [all the subsections]. At the conclusion of our research, we provided the SCRAP Weapons team with two copies of the technical manual: a PDF copy for longevity and a Word document that the team can develop as they make changes to the website.

5.2. Recommendations

The GWTP fills an important niche in the field of weapons transparency. Its supportive role as a comprehensive portal to open source investigators has the ability to increase the reach of weapons tracking data to those without prior knowledge in the field. Therefore, our recommendations focus on honing the GWTP towards its niche.

We recommend SCRAP Weapons add more open source investigators and tracking tools to the database.

The GWTP aims to provide a comprehensive database of open source investigators for users to find weapons tracking information that fits their research. To broaden the scope of available resources, we recommend that the SCRAP Weapons team add more organisations to the website. During our research, we found several useful organisations and tools that the website is missing. Two notable websites include the Bellingcat Radar Interference Tracker and Transparency International, both of which would help round out the GWTP database. We were

unable to add organisations and tools to the GWTP as we did not have the time to request and receive permission from other organisations. Therefore, we recommend the SCRAP Weapons team request permission from organisations and add them to the database. They can add any new organisations to the GWTP using the procedures in the technical manual.

We recommend SCRAP Weapons update the current organisation descriptions.

We noticed that many organisation descriptions are outdated, poorly written, or inaccurate. Since descriptions need approval from their respective organisations, updating them was not feasible for us within the timeframe of our research. As such, we recommend that the SCRAP Weapons team reaches out to these organisations to obtain updated descriptions. We provided SCRAP Weapons with a compiled list of organisation descriptions that were flawed or inaccurate (see Appendix H for descriptions). Updating inaccurate descriptions would provide greater context for organisations, reinforcing the comprehensibility of the database.

We recommend SCRAP Weapons continue UI optimisation.

The current maps displayed on the GWTP are slow and inconsistently visible. These map issues likely result from inefficient code that generates the maps. To mitigate the problems with the maps, we encourage the SCRAP Weapons team or future IQP teams to optimise or rewrite the code for better performance. In addition, the information currently displayed by the maps is clunky and incomprehensible. We recommend that either SCRAP Weapons or a future IQP team streamlines the displayed information to maximise the comprehensibility and utility of the maps.

Throughout the UI redesign process, we used the mobile and tablet previews in Wordpress to ensure the new designs would display properly. Since we have concluded our work on the GWTP, the SCRAP Weapons team is responsible for assessing the mobile and tablet accessibility of any edits made to the website. The SCRAP Weapons team may refer back to the technical manual to learn how to utilise the mobile and tablet previews in Wordpress. Following compatibility assessment, the SCRAP Weapons team should perform usability testing for mobile and tablet users. Our usability tests focused on laptop users, but the SCRAP Weapons team may gain a greater understanding of the GWTP's accessibility by assessing its functionality on all platforms.

We recommend SCRAP Weapons update keyphrases and the technical manual periodically.

Our team used the *All In One SEO* plug-in to implement keyphrases that improve the GWTP's performance on search engines. However, search engine optimization (SEO) keyphrases become outdated over time due to changes in current events. To maintain the relevance of the website, we encourage the SCRAP Weapons team to periodically monitor the scores provided by *All In One SEO* and implement more effective keyphrases if necessary. We strove to apply keyphrases that earned a score ranging from 70 to 100; therefore, SCRAP Weapons may want to update any keyphrases falling below 65. Members of SCRAP Weapons can refer to the technical manual for all descriptions and procedures relating to the *All In One SEO* plug-in. Moreover, as Wordpress, Elementor, and *All In One SEO* change over time, procedures from the technical manual will become out of date, and the SCRAP Weapons team will need to update the manual to maintain its relevance. We have provided the SCRAP Weapons team with a Word document that they may edit to reflect any updates to the website.

We recommend that the SCRAP team implements a multifaceted outreach strategy.

The SCRAP Weapons teams' main goal is to expand the GWTP to a large audience of non-technical individuals interested in weapons tracking, while also connecting with high-value individuals. Dan Plesch also wishes to increase the level of outreach within the United States, specifically in Massachusetts. Given a study of virtual outreach strategies (see Appendix I), we recommend the SCRAP Weapons team reach out to pre-established virtual communities to expand the GWTP's non-technical audience. The outreach strategy interviews with the SCRAP team and Martin Butcher showed a consensus favouring podcast marketing over the other virtual group outreach methods. Specifically, reaching out to podcasts run by American think tanks - including the Center for Strategic and International Studies and the Harvard Kennedy Belfer Center - would increase outreach to Americans potentially interested in weapons tracking. To reach out to high-value relationships within the United States, our team recommends members of the SCRAP Weapons team attend the same webinars or virtual conferences as their high-value

relationship target. Attending virtual events, followed by consistent contact via email or virtual meetings, will increase SCRAP's relationship with the individual to the point of access to their network. Certain individuals we recommend include Massachusetts Senator Ed Markey, Stimson Board of Directors member and Georgetown Professor Robert Gallucci, and Brett Forrest, National Security Reporter for the *Wall Street Journal*. All three of these individuals are leading disarmament figures within their respective occupations of federal legislation, academia, and journalism.

We recommend that the SCRAP Weapons team improves the outreach strategy review guide.

Outreach strategies vary in effectiveness over time, given audience trends. While the current guide provides ample definition and instruction for implementing virtual outreach strategies, in-person outreach strategies are becoming more prevalent for advocacy organisations due to the decline of COVID-19 restrictions. Incorporating more outreach strategies for the SCRAP Weapons team to consider will ensure that they implement the best potential outreach strategy.

5.3. Closing Remarks

The GWTP has the potential to be a beneficial tool to increase weapons transparency and aid disarmament efforts. The website introduces interested users to numerous open source verification tools to help them find relevant weapons tracking data. By providing an accessible platform for inexperienced users, the GWTP increases the visibility of weapons tracking data. As access to weapons tracking data draws attention to the danger of the arms trade and weapons stockpiles, the general public will be better informed on the state of global disarmament efforts. An informed public can hold nations accountable for their participation in global disarmament. Therefore, the GWTP plays a critical role in pushing disarmament efforts forward in an era of global conflict.

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Appendix A: Advocacy Leader Semi-Structured Interview Script

This document acts as a reference for each semi-structured interview with the SCRAP Weapons team's affiliates. We will not ask all questions written in this guide. However, if our interviews develop deeper conversations among a certain concept, we will have more in-depth questions to elicit further detail. The questions within each group are categorised by increasing specificity. This guide only represents the main themes of discussion with the participants and does not include general prompts such as "can you go into more detail?".

1. Introduction and Informed Consent

We are a group of students from Worcester Polytechnic Institute in Massachusetts. We are working with the SCRAP Weapons Team at the University of London to increase the reach and comprehensibility of weapons tracking data to promote weapons transparency. Currently, we are conducting interviews to gain expert opinions which could influence the design, purpose, audience, and outreach within the weapons tracking website we are working to improve.

The interview will follow a semi-structured style, allowing for you to provide longer responses to expand on any ideas you feel are prevalent. Also, you will have about 3-5 minutes to personally look through the weapons tracking site before we ask you any questions. Prior to showing the site, we will ask questions to determine your background, including prior experience and its relation to SCRAP Weapons. After looking at the site, you will be asked questions on your initial impressions of the site along with the overall current and potential value of the site. Finally, we will ask questions on the best practices to engage with audiences.

Your participation in this interview is completely voluntary and you may withdraw at any time. If you would like your answers to remain anonymous, please specify to the team. Our team will use your insights to improve the SCRAP Weapons Global Weapons Tracking Website. If interested, a copy of our findings can be provided at the conclusion of our study by emailing our team (gr-wE22-London@wpi.edu).

- Are there any questions?
- Do you wish for your answers to be anonymous?

- May we turn on the audio and video recording?

Thank you, your participation is greatly appreciated.

2. Establishing Rapport

The goal of this section is to determine the background of our interviewee. Questions that could be asked are:

- Can you tell me a little bit about yourself?
- How many years have you been in the industry?
- Have you worked with SCRAP Weapons before?
- Have you used the Global Weapons Tracking website before?
 - How much do you remember from your experience(s) with the website?

3. First Impressions from Website

The goal of this section is to determine a baseline opinion on the website. As a guideline, we will share our screen to show the website homepage for participants who either have no experience or do not remember their experience with the website. Prior to displaying the website, we will provide a description of the website to the interview. That description is: “The SCRAP Weapons Global Weapons Tracking website is a portal to open source research organisations focused on weapons tracking and disarmament efforts. The goal of the website is to increase the transparency of weapons tracking data through easily accessible and comprehensible formatting.” We will also send a link to the website in the Zoom chat so that participants may follow along on their own. Questions that could be asked are:

- What was your initial opinion of the website?
- Did you have any issues with using the website?
- Anything you didn’t mention that you specifically like?
- Do you believe the website is intuitive/user friendly to use?

4. Value of the Website

The goal of this section is to gain a variety of perspectives on the website's goal, and discuss ideas for reinforcing its value. Again, "The SCRAP Global Weapons Tracking website is an open source research portal to provide quick and easy access to all relevant open source information on global weapons tracking." Questions that could be asked are:

- Do you believe the purpose was made clear on the website?
- Were you able to accomplish anything meaningful using the website?
- Were there any features that you felt were missing from the website?
- What are tools that you typically use and enjoy in your work?
- Was there anything about our tool that stood out to you in comparison to other tools you typically use?
- Could you imagine incorporating this website into your daily work?

5. Advocacy and Outreach

The goal of this section is to learn how advocacy groups engage with their audience. Questions that could be asked are:

- How do you adjust your content to be engaging to your audience?
- What are the methods you use to reach out to your audience?
 - Which methods do you find particularly effective or ineffective?
- How do you gather feedback from your audience?
 - How helpful is this feedback?
- Final questions or comments?

Appendix B: Advocacy Website List for Systematic Comparison

We compared the stylistic elements of the following websites to determine a strong list of design criteria for the Global Weapons Tracking Portal (GWTP) website's redesign.

The Acronym Institute for Disarmament Diplomacy

- A civil society organisation focused on disarmament efforts and increasing international security.
- <http://acronym.org.uk/>

Amnesty International

- A non-governmental organisation that works against human rights abuses internationally.
- <https://www.amnesty.org/en/>

Bellingcat

- An open source research group with a focus on transparency and accountability.
- <https://www.bellingcat.com/>

Conflict Armament Research

- A team of investigators that collect weapons tracking data during armed conflicts.
- <https://www.conflictarm.com/>

Conflict Research Society (CRS)

- A research exchange forum with the goal of furthering international security efforts.
- <https://conflictresearchsociety.org/>

GAN Integrity

- Provides companies with compliance software to prevent unethical business practices.
- <https://www.ganintegrity.com/>

International Aid Transparency Initiative (IATI)

- An organisation that seeks to increase the transparency of resources for developing countries.
- <https://iatistandard.org/en/>

International Alert

- An international organisation focused on promoting global peace.
- <https://www.international-alert.org/>

The Nuclear Threat Initiative (NTI)

- An organisation highlighting global nuclear and biological threats with an end goal of reducing nuclear and biological weapons.
- <https://www.nti.org/>

Partnership for Transparency

- An organisation that helps civil society organisations in their campaigning efforts to empower citizens to hold their governments accountable.
- <https://www.ptfund.org/>

PAX

- A peace organisation based in the Netherlands that works in active areas of conflict globally to promote peace and security measures.
- <https://paxforpeace.nl/>

Peace Direct

- An international charity that supports local people in conflict zones to drive peace efforts.
- <https://www.peacedirect.org/us/>

Sapience Analytics

- A company that provides employee analytics to improve productivity.
- <https://sapienceanalytics.com/>

Stockholm International Peace Research Institute (SIPRI)

- An international research institute that conducts open source research into arms control and disarmament efforts.
- <https://sipri.org/>

Transparency International

- An association seeking to eliminate corruption in governments, politics, businesses, and civil society.
- <https://www.transparency.org/en/>

United Nations Register of Conventional Arms (UNROCA)

- An international reporting tool that allows governments to make their conventional arms transfer data transparent.
- <https://www.unroca.org/>

United Nations World Food Programme (WFP)

- An organisation that provides food assistance in starving communities as a starting point for local conflict and crisis efforts.
- <https://www.wfp.org/>

United States Institute of Peace (USIP)

- An independent institute based in the US that works with governments and civil society organisations to promote peace.
- <https://www.usip.org/>

VTS Solutions

- A company that produces transport and tracking technologies.
- <https://www.vtssolution.com/>

Appendix C: Systematic Website Comparison Criteria

Each bullet point notes a UI element we found important to making the Global Weapons Tracking Portal (GWTP) website more intuitive and accessible. The following sub-bullet points describe each aspect of the UI elements examined during our systematic comparison of advocacy websites.

- Mission statement
 - Is it understandable?
 - Length?
 - Does it stand out?
 - Is it reinforced throughout the website?
- Fonts
 - Sizing and consistency in size
 - Capitalization
 - Changes in fonts on each page
 - Colour/contrast
- Text
 - How easy is it to read/comprehend
 - Brevity
 - Is it too much content at once?
 - How is it displayed? Does it make you want to come back, or is it too messy?
- Buttons and icons
 - Are they noticeably clickable?
 - Do they look clickable when they're not?
 - Are they too big? Too small?
 - Is the placement good or unsatisfactory?
 - Are the buttons clear as to which page they're linking to?
- Dropdowns
 - Useful? Unuseful?
 - How are they oriented?

- How much space do they take up?
 - Too many or too little pages?
- Toolbar
 - Does it help navigate?
 - Are there dropdowns?
 - Does the toolbar reference all pages on the website?
- Search bar
 - Is there one?
 - Does it have satisfactory placement?
 - Does it work well?
- Images
 - Placement?
 - Are they clear?
 - Do they make sense?
 - Are they used for the background of specific pages?
 - Is this done effectively?
- Interactables
 - Is it clear that you can interact with it?
 - Is the interaction smooth/intuitive
 - Are visuals clunky or well-designed?
 - Is it necessary? Does it add value?
 - Stand-out issues
- Make note of any elements that stand out and are not covered by prior bullet points

Appendix D: UI Design Survey Mock-up Designs

The following titles describe the UI element highlighted for each mock-up image below. The Visual Design Survey used these mock-up images and fell under questions related to the categorised titles.

Quick Links:



Explore Open Source Investigators



Tour Live Tracking Websites



View Interactive Maps

Explore Open Source Investigators



[Learn More](#)

Tour Live Tracking Websites



[Learn More](#)

View Interactive Maps



[Learn More](#)



Use our comprehensive database of open-source investigators to find the right information for your purpose.

[Learn More](#)



Explore live tracking websites to monitor the location of ships, planes, and satellites from around the world

[Learn More](#)



Visit our maps detailing weapons imports, exports, and stockpiles as well as transparency indicators.

[Learn More](#)

Title and Mission Statement



To promote transparency and accountability of global weapons trades and stockpiles while uniting the arms controls community



To promote transparency and accountability of global weapons trades and stockpiles while uniting the arms control community

Button Styles:

Use our comprehensive database of open source investigators to find the right information for your purpose.



Learn More

Use our comprehensive database of open source investigators to find the right information for your purpose.

Learn More

Use our comprehensive database of open source investigators to find the right information for your purpose.

Learn More →

Use our comprehensive database of open source investigators to find the right information for your purpose.



Learn More

Use our comprehensive database of open source investigators to find the right information for your purpose.

Learn More

Use our comprehensive database of open source investigators to find the right information for your purpose.

Learn More →

Use our comprehensive database of open source investigators to find the right information for your purpose.



Learn More

Use our comprehensive database of open source investigators to find the right information for your purpose.

Learn More

Use our comprehensive database of open source investigators to find the right information for your purpose.

Learn More →

Fonts:

Tour Live Tracking Websites

Explore live tracking websites to monitor the location of ships, planes, and satellites from around the world

Tour Live Tracking Websites

Explore live tracking websites to monitor the location of ships, planes, and satellites from around the world

Tour Live Tracking Websites

Explore live tracking websites to monitor the location of ships, planes, and satellites from around the world.

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Tour Live Tracking Websites

Explore live tracking websites to monitor the location of ships, planes, and satellites from around the world

Tour Live Tracking Websites

Explore live tracking websites to monitor the location of ships, planes, and satellites from around the world

Title Capitalization:

Tour Live Tracking Websites

Explore live tracking websites to monitor the location of ships, planes, and satellites from around the world.

Tour live tracking websites

Explore live tracking websites to monitor the location of ships, planes, and satellites from around the world.

TOUR LIVE TRACKING WEBSITES

Explore live tracking websites to monitor the location of ships, planes, and satellites from around the world.

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Tour live tracking websites

Explore live tracking websites to monitor the location of ships, planes, and satellites from around the world.

TOUR LIVE TRACKING WEBSITES

Explore live tracking websites to monitor the location of ships, planes, and satellites from around the world.

Text Contrast:

Global Weapons Tracking

Appendix E: Sample Usability Testing Tasks

We asked our usability testing participants to complete each sample task listed below. These tasks helped us to establish which UI elements were easy to navigate, and which were still in need of improvement.

We are a group of students from Worcester Polytechnic Institute in Massachusetts. We are working with the SCRAP Weapons Team at the University of London to increase the reach and comprehensibility of weapons tracking data to promote weapons transparency. We redesigned the user interface (UI) of the SCRAP Weapons Global Weapons Tracking Portal. We are currently conducting usability testing to examine the accessibility and navigability of the redesigned UI.

You will be asked to complete a series of tasks using the tools on the website. As you navigate through the website, feel free to talk through all actions you take and provide feedback as you see fit. We will ask for any additional comments or questions after you complete each task. Afterwards, you will have time to look through the website at your leisure and share any opinions on design features. Your participation in this study is completely voluntary and you may withdraw at any time. Are there any questions before we begin?

- Task 1: Find a project that documents weapons in South Sudan.
- Task 2: Use the maps to determine how many total reports the United States have submitted to UNROCA.
- Task 3: Identify a ship currently sailing in the Atlantic Ocean.
- Task 4: Find the names of all website contributors.
- Task 5: Access the SCRAP Weapons Twitter page.

Appendix F: Technical Manual

To assist with website administration and maintenance, we provided a technical manual to the SCRAP Weapons team. The following pages are taken directly from the technical manual and detail the procedural and contextual information for operating the GWTP.

Introduction

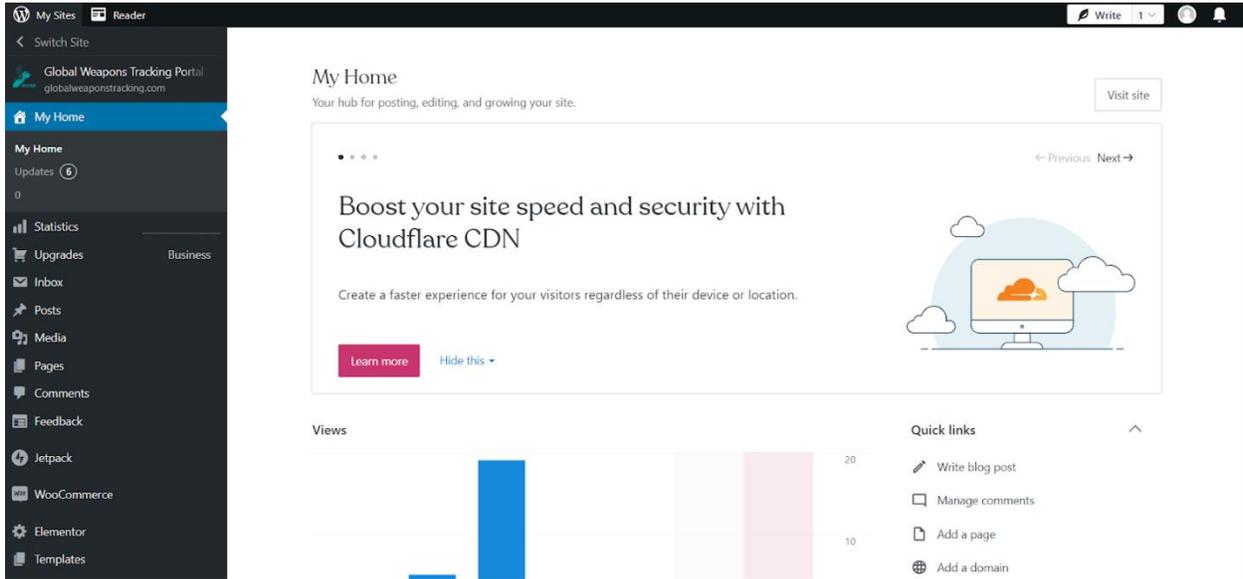
The Global Weapons Tracking Portal (GWTP) is a website created by the Strategic Concept for the Removal of Arms and Proliferation (SCRAP Weapons) in collaboration with several student teams from Worcester Polytechnic Institute (WPI). The GWTP is an ongoing project with the goal of increasing the transparency of weapons tracking data to bring more awareness to global disarmament efforts. With such an important niche, the GWTP needs to be properly maintained and updated to effectively serve its purpose.

This technical manual was created by the third WPI team to aid SCRAP Weapons with all future website development and management. This manual includes information on the following topics:

- Wordpress dashboard
- Elementor
- Pages
- Posts
- Templates
- Organisation posts
- Previews
- Themes
- Menus
- Sidebar
- Plugins
- Backups and Restoration
- GitHub
- Maps
- Additional CSS

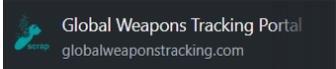
Wordpress Dashboard

When you log into Wordpress to manage the website, you will land on your Wordpress dashboard, shown below:



The left side of the screen has a sidebar that allows you to select the information you would like to access. When something is selected from the sidebar, the corresponding page will appear on the right side of the screen.

The sidebar contains information on all aspects of your website. All sidebar items used in updating and maintaining the Global Weapons Tracking Portal will be discussed in detail throughout the remainder of this manual. The necessary items include:

Image	Item	Description	Page Number
	Website Preview	Allows you to preview the full website for desktop, tablet, and mobile views.	54

 Posts	Posts	Allows you to access, edit, and manage all posts. The GWTP website uses posts for all open source verification organisations.	32
 Pages	Pages	Allows you to access, edit, and manage all pages.	20
 Jetpack	Jetpack	Jetpack is a plugin that allows you to access statistics for the GWTP website, create backups, and restore from a backup.	83
 Elementor	Elementor	Elementor is the plugin used to edit all pages and posts for the GWTP website.	4
 Templates	Templates	Allows you to access, edit, and manage all templates.	42
 Appearance	Appearance	Allows you to edit the appearance of the entire website, including colours, fonts, menu options, headers, and footers.	56
 Plugins 1	Plugins	Allows you to access, manage, and download plugins for the website.	72

Elementor

Elementor is a Wordpress plug-in that allows for a more versatile web design experience. The Elementor editor allows you to drag and drop design elements into pages and posts and customise them to your liking.

The Global Weapons Tracking Portal uses the free version of Elementor. As such, this section will not cover any paid content.

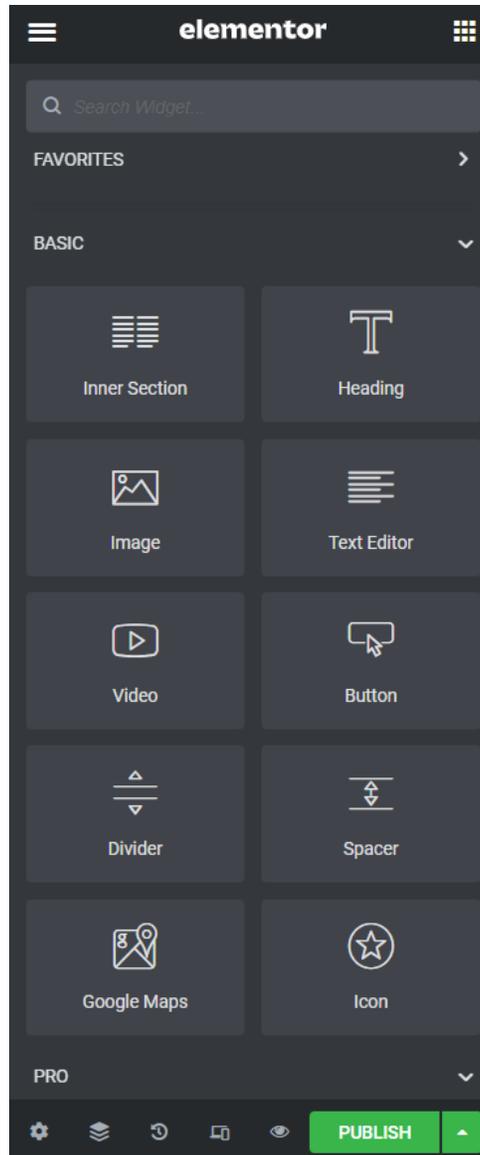
Editing in Elementor

All pages and posts should be created and updated using the Elementor editor.

To enter the Elementor editor:

1. Navigate to your Wordpress homepage.
2. Click on pages in the sidebar if you would like to edit a page OR click on posts in the sidebar if you would like to edit a post.
3. Click on the desired page or post. This will open the page or post in the Wordpress editor.
4. Click on “Edit in Elementor.” This will open the Elementor editor.

The page or post will take up the majority of the screen and the Elementor editor will be displayed on the left side of the screen. The Elementor editor contains several options for design elements, shown below:

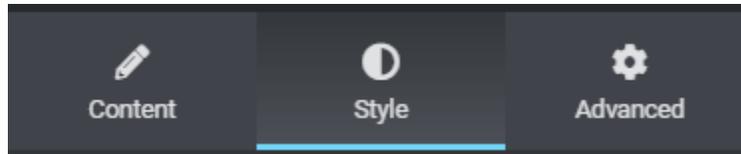


To use any element:

1. Click and hold the desired element.
2. Drag the element into the desired section or placement.
3. Let go of the element. The element should appear within the page or post containing placeholder information.

To edit an element:

1. Click on the desired element within the page or post. This will pull up the content settings for the specific element within the Elementor editor.
2. Edit the content settings to your liking.
3. Click on the “Style” button at the top of the Elementor editor, shown below:

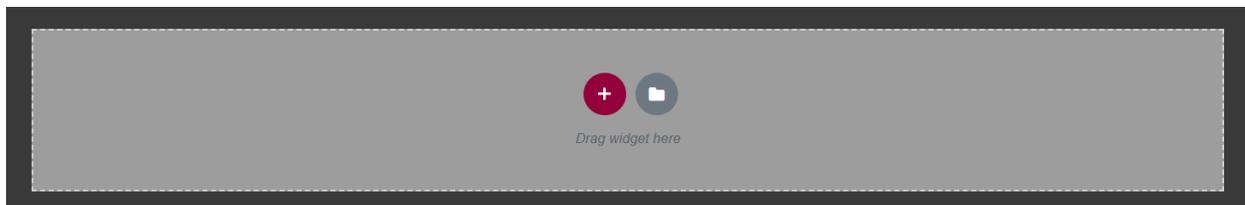


4. Edit the style settings to your liking.
5. Click on the “Advanced” button at the top of the Elementor editor.
6. Edit the content settings to your liking.

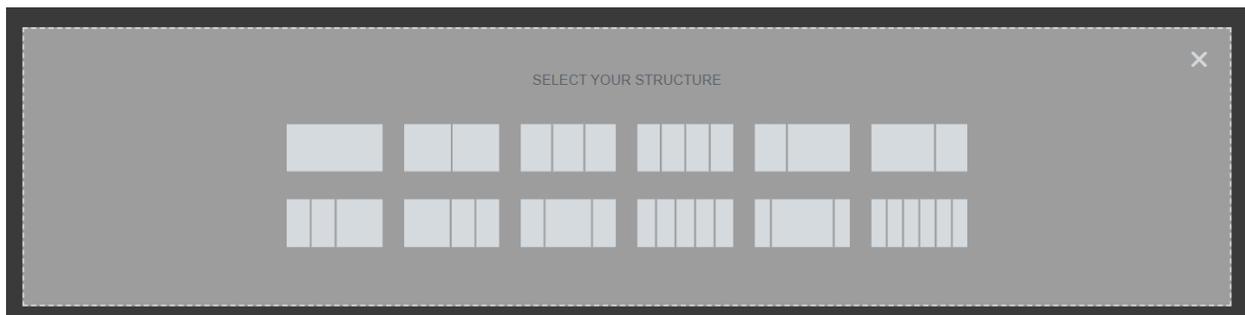
You can group elements into sections. Creating a section allows you to move grouped elements all at once instead of moving individual elements.

To create a section:

1. Scroll to the empty widget at the bottom of the page, shown below:



2. Click the red “+” button. This will pull up the following structure options:



3. Click on your desired structure. A new section will be created with the structure you selected.

NOTE: The structure can be changed later if you change your mind.

When hovering over a section, the section will be highlighted, as shown below:



The blue tab at the top of the section box contains three different options.

- Clicking the “+” symbol on the blue tab creates a new section above the current section.
- Clicking the centre symbol opens the section editor in Elementor and allows you to drag the section to its desired placement on the page or post.

- Clicking the “x” symbol deletes the current section.

Once inside the section editor there will be three tabs: layout, style, and advanced.

Layout:

Within layout, you can change several settings for the whole section:

Setting	Description	Options
Content Width	Adjusts the width of the section.	Full width: stretches the section to encompass the whole width of the screen Boxed: lets you pick a set amount of pixels for the section width
Columns gap	Adjusts the amount of space between columns in a section if the section has two or more columns.	Default, No gap, Narrow, Extended, Wide, Wider, or Custom
Height		Default: a set number of pixels tall Fit to screen: makes the section as tall as one screen length regardless of screen size Min height: lets you set the minimum number of pixels for the height, and the minimum height will be used unless the content of a column causes it to exceed this height.
Vertical align	Sets the vertical alignment of columns within the section.	Default, Top, Middle, Bottom, Space between, Space around, Space evenly
Overflow	Decides whether content that overflows the boundaries of the section is visible or if the overflow content is hidden	Default, Hidden
Stretch section	A second way to make the section extend to the full width of the page	On, Off
HTML tag	Unnecessary for our purposes.	-

Style

Style settings allow you to change the appearance of the section. Style settings include:

Setting	Description	Options
Background	You can change the way the section background looks both normally and when hovering.	Normal options: Classic (colour or image), Gradient, Video, Slideshow Hover options: Classic (colour or image), Gradient
Background Overlay	Unnecessary for our purposes	-
Border	Creates a border around the whole section. Borders can be set for normal appearance or for hovering.	Border type: determines the type of line used for the border Solid, Double, Dotted, Dashed, Groove Border radius: determines the thickness of the border Adjusted by typing in a number of pixels or using the arrow buttons to increase/decrease the size
Shape divider	Unnecessary for our purposes	-
Typography	Unnecessary for our purposes	-

Advanced

The advanced settings allow for more complex ways to edit the page. There are only two settings under the advanced section that are important to know: margins and padding. All other advanced settings can be performed more easily using the style settings.

Margin

Margin affects the space between elements in a page, which DOES NOT affect the size of the element, only shifting it around. Margin can be changed by typing in a number or using the directional arrows to change the number of pixels. You can toggle the link button to the right of the numbers to either link the four directional values or unlink them to change each one individually.

Padding

Padding affects the spacing between content and the element border, usually by making the border of the element bigger, or by making the content smaller. Padding can be changed by typing in a number or using the directional arrows to change the number of pixels. You can toggle the link button to the right of the numbers to either link the four directional values or unlink them to change each one individually.

Margin should be used when trying to change the spacing in relation to other elements on the page, whereas padding should be used to increase the size of the whole element or decrease the size of the content within the element.

The following subsections will describe the different elements and the unique editing options available for each one.

NOTE: This section will not include information on the Google Maps element, as it is unnecessary for the Global Weapons Tracking Portal.

Inner Section

The inner section element creates a section within the main section.

To create and style an inner section

1. Drag an inner section element from the Elementor editor into the desired section. When placed, the default element will look like this:



2. Edit all settings to your liking. The inner section settings are identical to the main section settings, detailed on page 6

Heading

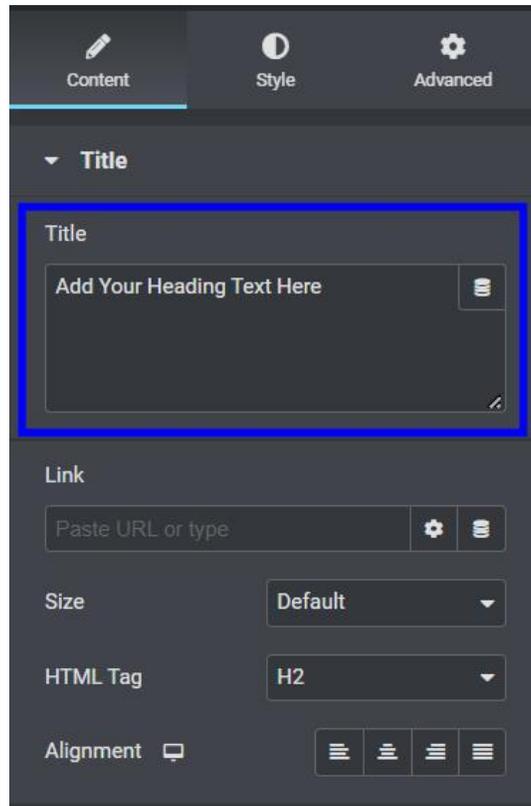
The heading element is used to create titles and section headers.

To create and style a heading

1. Drag a heading element from the Elementor editor into the desired section. When placed, the default header will look like this:

Add Your Heading Text Here

2. Type the desired heading into the “Title” box under content settings, shown below:



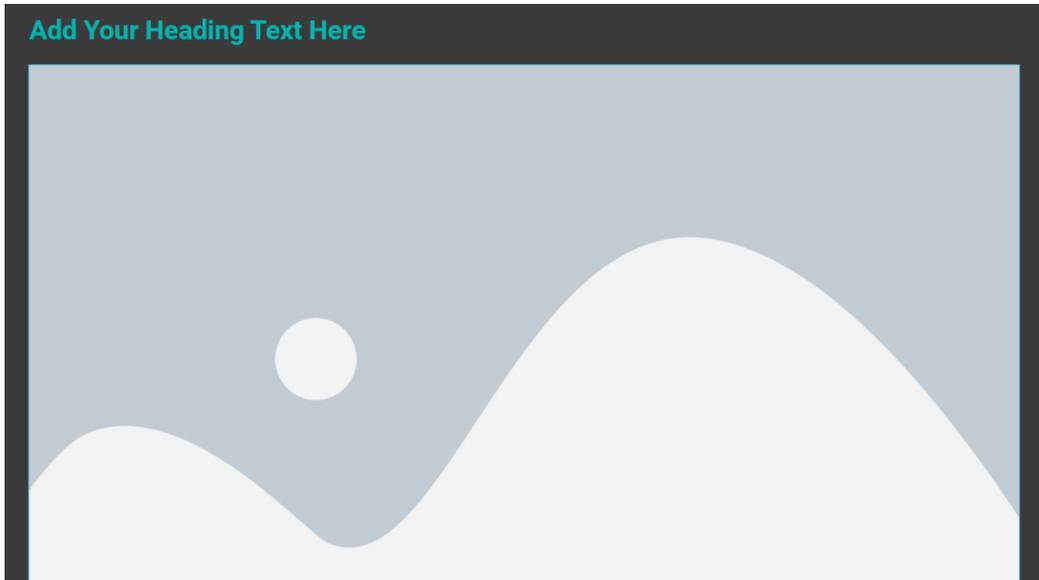
3. Select the centre alignment.
4. Click on “Style.”
5. Change the colour and typography settings to your liking.

Image

Images are important for adding visual interest and relevant context to pages and posts.

To create and edit an image:

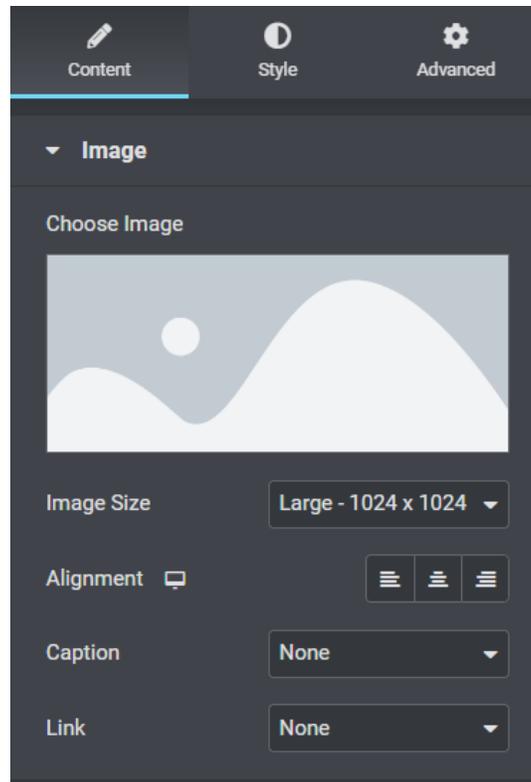
1. Drag an image element from the Elementor editor into the desired section. When placed, the default image will look like this:



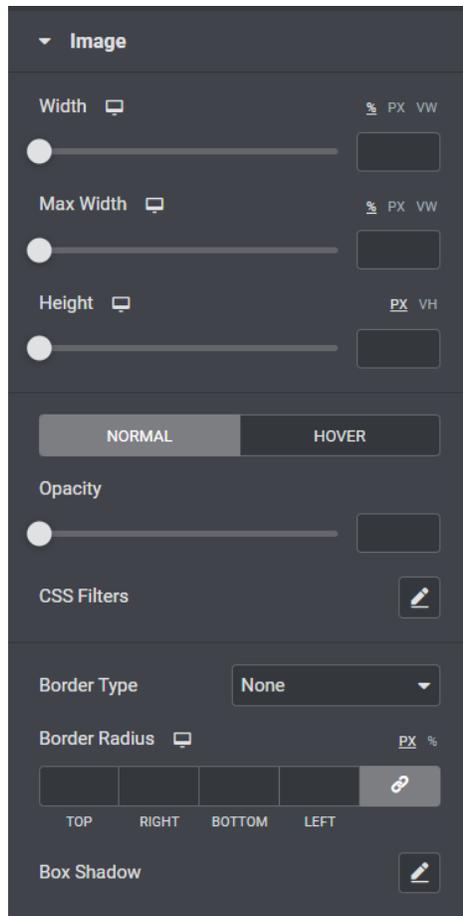
2. Click on the placeholder image in the Elementor editor. This will pull up the media library.
3. Click on the image you would like to insert into the page or post.
4. Click the “Insert Media” button, shown below. The image will replace the placeholder.



5. Edit the content settings to your liking. The content settings are shown below:



6. Click on “Style.”
7. Edit the style settings to your liking. The style settings are shown below:

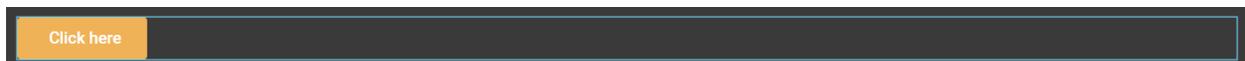


Buttons

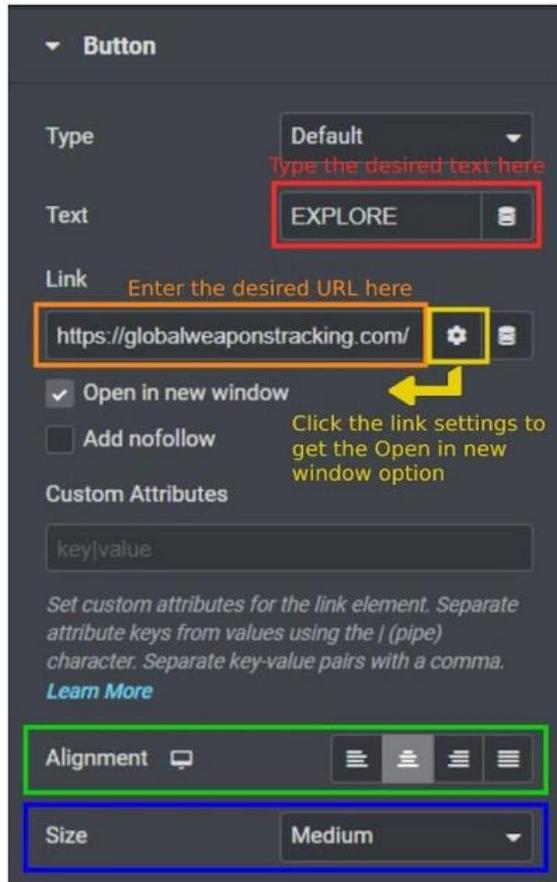
Buttons are important for linking users to other pages, posts, and external websites. The buttons on the Global Weapons Tracking Portal all use the same settings to have a uniform appearance across the website.

To create and style a button:

1. Drag a button element from the Elementor editor into the desired section. When placed, the default button will look like this:

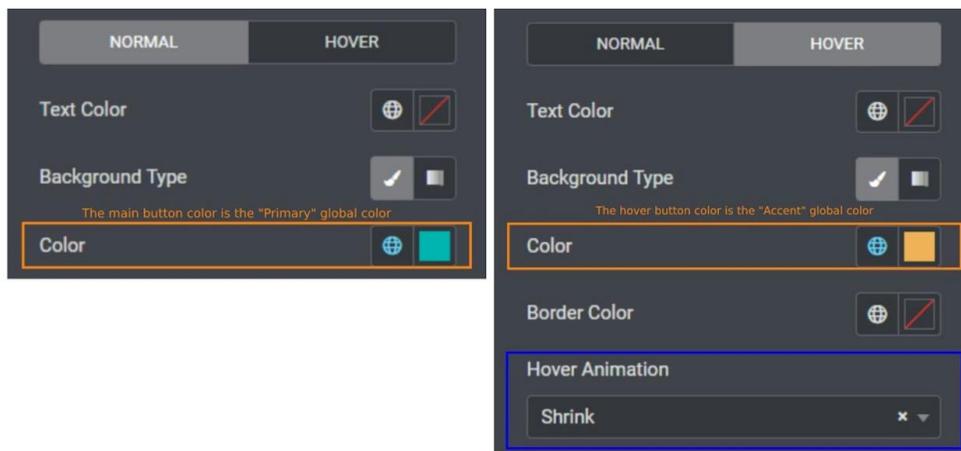


2. Set the proper “Content” settings, shown below:



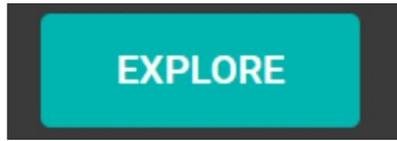
NOTE: The “Open in new window” setting is primarily used when linking to an external website. If you are linking to a different page or post on the Global Weapons Tracking Portal, you do not have to select that setting.

3. Click “Style” at the top of the Elementor editor.
4. Select the proper “Style” settings shown below:

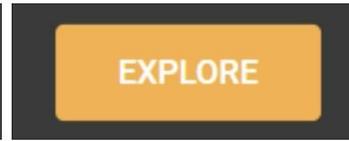


When the proper style settings are applied, the button should look like this:

Normal



Hover



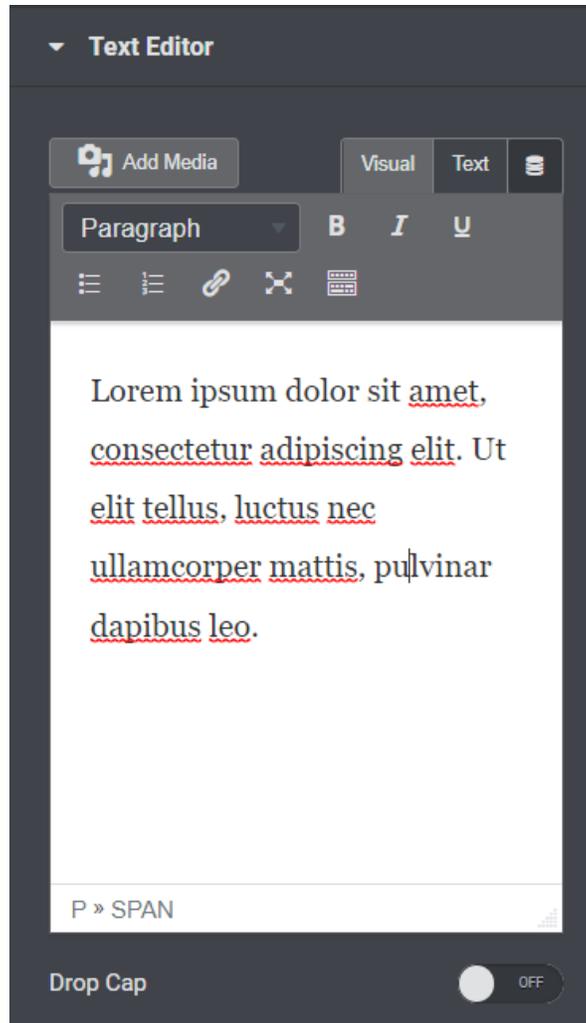
Text Editor

When adding body text to a section, you will want to use the text editor.

To add body text

1. Drag a “Text Editor” element from the Elementor editor into the desired section.

NOTE: When placed, the text will initially be hard to see. This is because the website’s background is a dark grey and the default text colour is black. You can see the default text in the Elementor editor on the left, shown below:

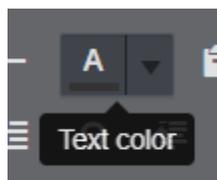


2. Click the toolbar toggle in the text editor, shown below:



This will expand the toolbar to include additional options including text colour.

3. Highlight all text within the text editor.
4. Click the arrow next to the text colour selector, shown below:



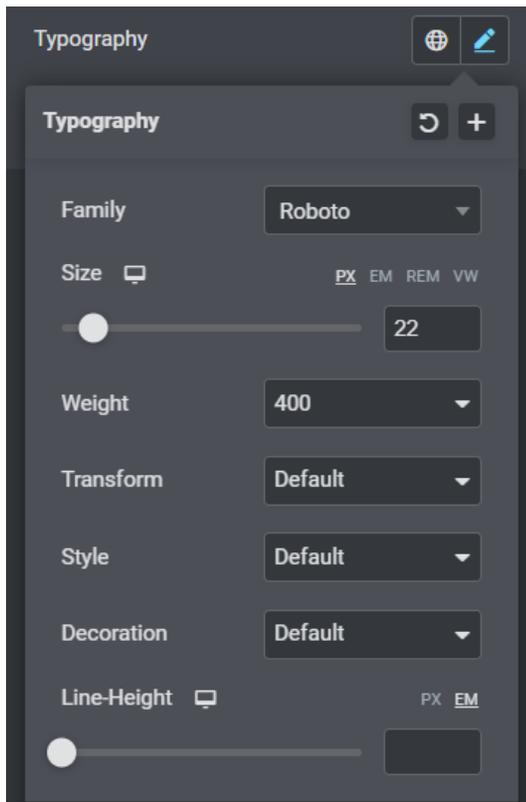
This will bring up a colour palette.

5. Click the desired text colour.
6. Type your desired text into the text editor box. The text element will change to match any edits you make within the text editor, as shown below:

Written content for the Global Weapons Tracking Portal

If you would like to change the font size

1. Click “Style” at the top of the Elementor editor. This will bring up the style settings.
2. Click the pencil icon next to “Typography.” This will bring up the typography settings, shown below:



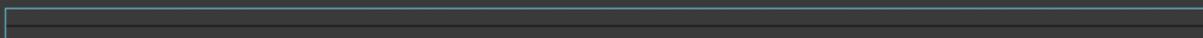
3. Use the slider to change the font size.

Divider

Dividers are a decorative way to break up sections on a page or post.

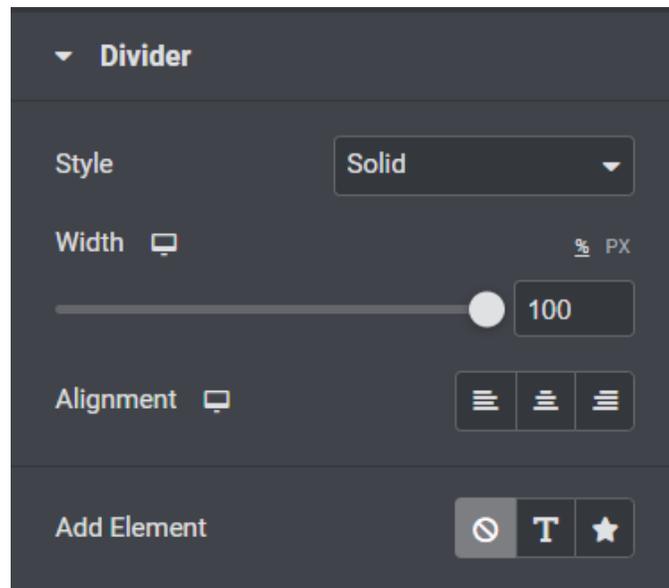
To create and style a divider

1. Drag a divider element from the Elementor editor into the desired section. When placed, the default divider will look like this:



NOTE: When placed, the divider will initially be hard to see. This is because the website's background is a dark grey and the default divider colour is black. The colour can be edited in the style tab.

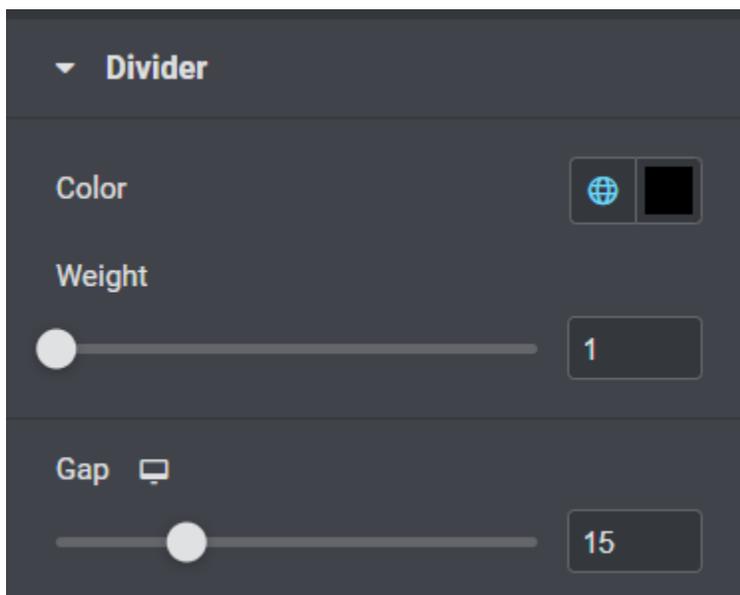
2. Edit the content settings to your liking. The content settings are shown below:



- Style determines the type of line used for the divider.
- Width determines how long the divider is.
- Alignment determines where the divider is placed in horizontal space.
- Add Element allows you to place text or an icon in the centre of the divider.

3. Click on “Style.”

4. Edit the style settings to your liking. The style settings are shown below:

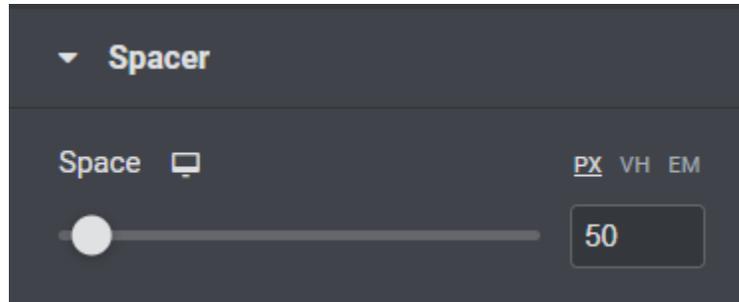


Spacer

Spacers allow you to break up sections with additional space.

To create and edit a spacer

1. Drag a spacer element from the Elementor editor into the desired section.
2. Use the slider in the Elementor editor to change the height of the spacer. The slider is shown below:



Icons

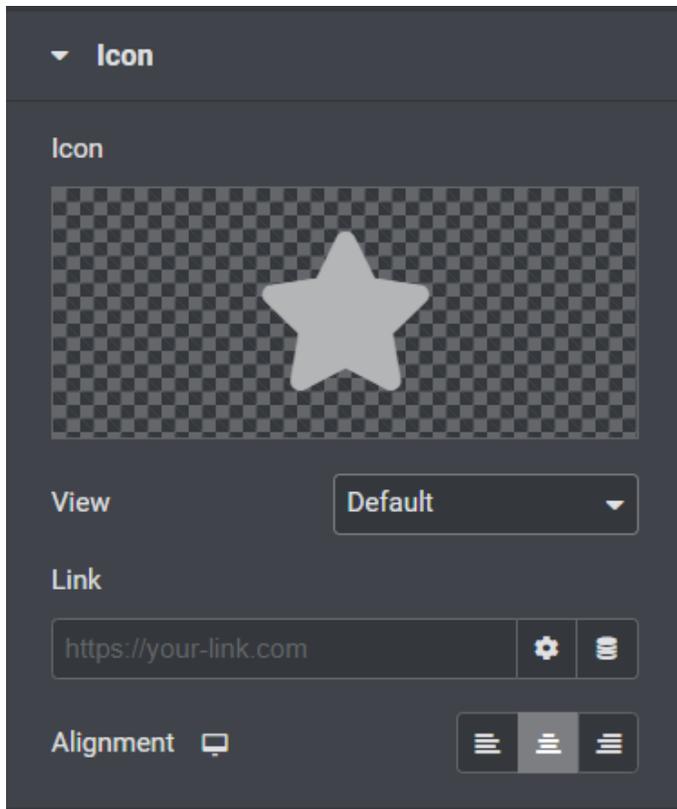
Icons are a simple way to visually represent information. Icons are used on the front page to represent each of the quick links.

To create and style an icon

- Drag an icon element from the Elementor editor into the desired section. When placed, the default icon will look like this:

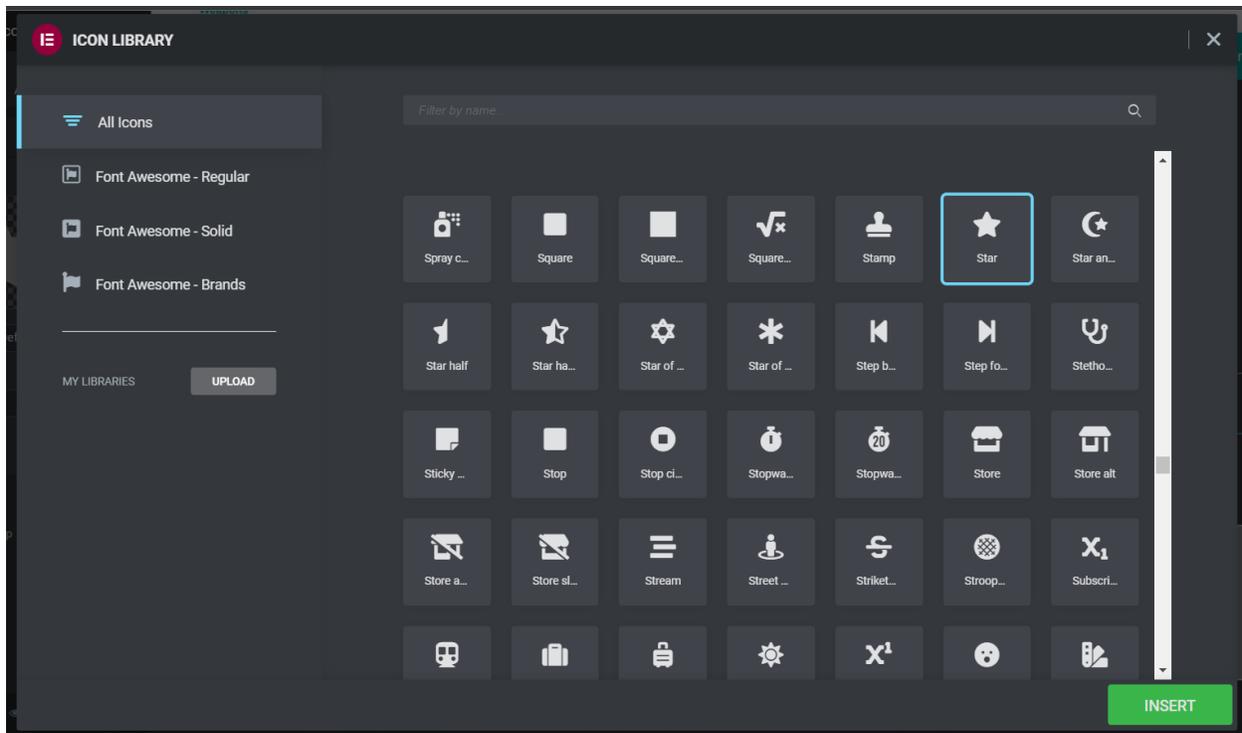


It will also bring up the following content options in the Elementor editor:



To change the icon

1. Hover over the icon box in the Elementor editor. This will bring up the option to access the icon library or upload your own SVG file.
2. Click “Icon Library.” This will bring up the icon library, shown below:



3. Scroll through or search the library to find the desired icon.
4. Click on the desired icon to select it.
5. Click the “Insert” button at the bottom of the window. This will apply the new icon shape.

There are three “View” options for icons in the Elementor editor. Changing the view will change the icon’s appearance. The three views are represented below:



To change the view

- Select your desired view from the drop-down next to “View” in the “Content” settings.

Shortcode

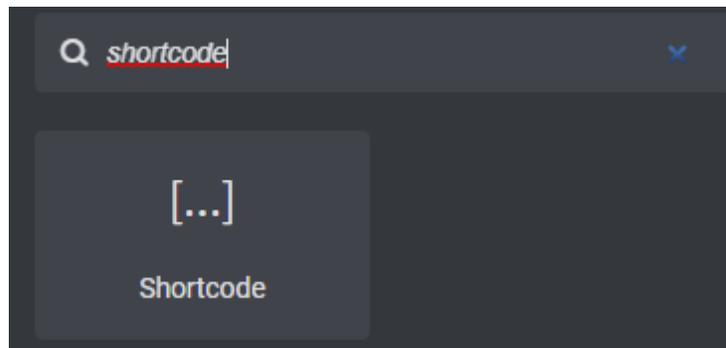
The final important element for the GWTP is shortcode. Shortcode allows you to link separate plugins to the page. This is primarily used in the map pages to move the map code from WP Coder to the page. To learn more about adding the maps to the pages, go to page 111. Shortcode is also used for the filter system, as you add both *Search & Filter Pro* and *Custom Layouts*

shortcode into shortcode blocks. To learn more about *Search and Filter Pro*, go to page 84. To learn more about *Custom Layouts*, go to page 78

The shortcode element is the only element used in the website that does not fall under Elementor's "Basic" category.

To add shortcode to a page

1. Search "Shortcode" in the search bar at the top of the Elementor editor, shown below:

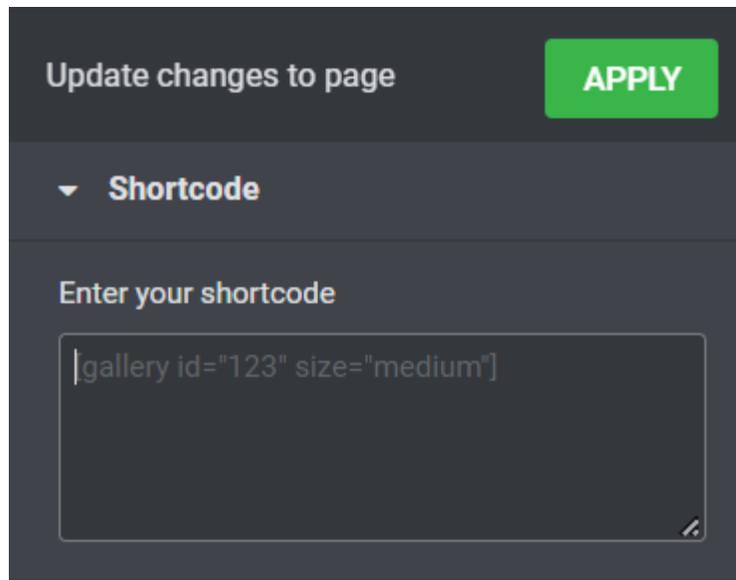


2. Drag a shortcode element from the Elementor editor into the desired section. When placed, the element will look like this:



NOTE: To use the shortcode element, you will need to have shortcode copied from one of your plugins, most likely WP Coder, Search and Filter, or Custom Layouts. Information on plugins can be found on page **INSERT PAGE NUMBER**

3. Paste your copied shortcode into the "Enter your shortcode" box in the Elementor editor, shown below:



4. Click the green “Apply” button to update the page to include the shortcode.

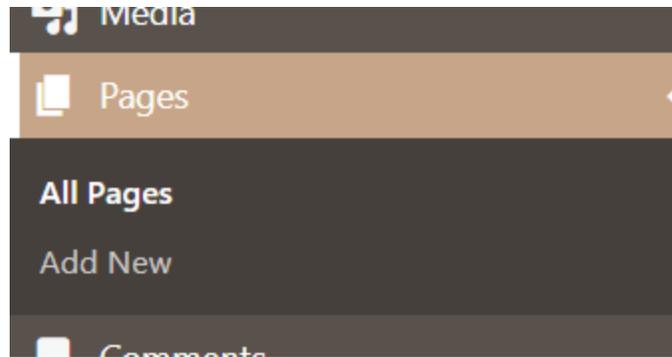
Pages

When adding new content to the website, you may want to start by creating a new page. A page allows you to section off information from the rest of the website. Pages have their own URL and can be accessed through either the toolbar or through links on other pages.

Pages are most helpful for information that will not need to be implemented into the filtering system, such as the homepage and the “About Us” page.

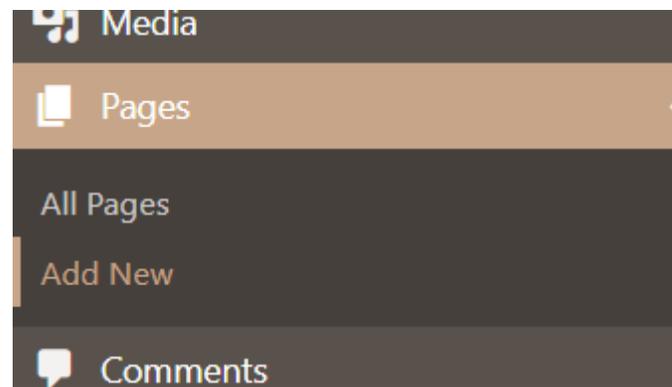
To access your pages:

1. Access your Wordpress dashboard.
2. Select pages from the sidebar. This will open the list of pages created for the website.



To create a new page

1. Access your Wordpress dashboard.
2. Select pages from the sidebar.
3. Select Add New Page.



4. The new page will appear in the Wordpress editor with the text “Add title”.

Add New Page

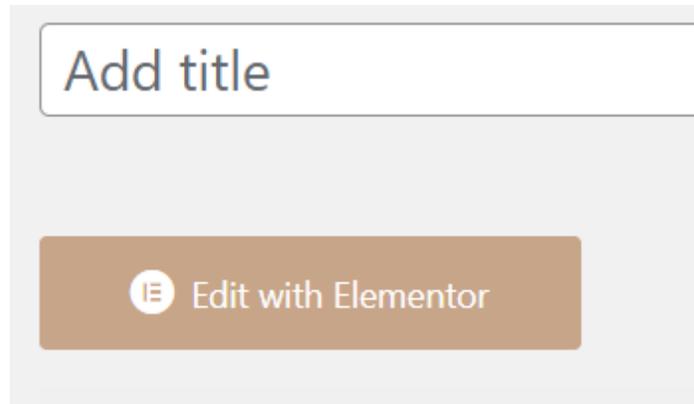
Hey, I noticed you have been using All in One SEO for some time - that's awesome! Could you please do me a BIG favor and give it a 5-star rating on WordPr our motivation?

~ Syed Balkhi
CEO of All in One SEO

[Ok, you deserve it](#)
[Nope, maybe later](#)
[I already did](#)

Add title

5. Click the text and type your desired page title.
6. Click the Edit with Elementor button at the top of the screen. This will take you to the page in the Elementor editor. You can now add all desired content to the page.



Pages are organized into four categories: published, drafts, scheduled, and binned.

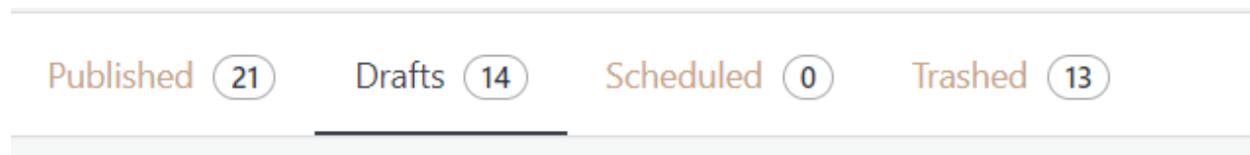
Published

Published pages are the pages that are currently live on the website. A page will not go live on the website unless you have specifically hit the publish button.

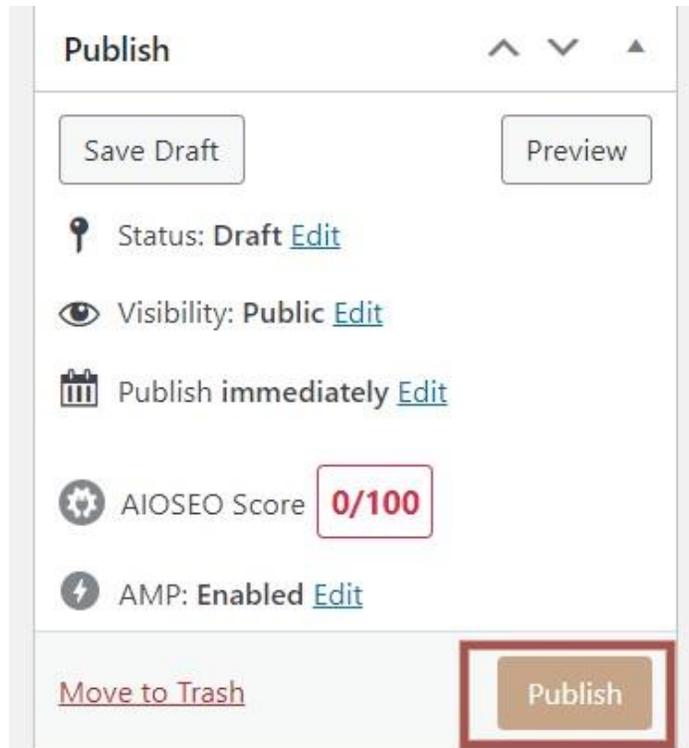
To publish a page

Within the Wordpress editor:

1. Click the Drafts tab in the list of pages.



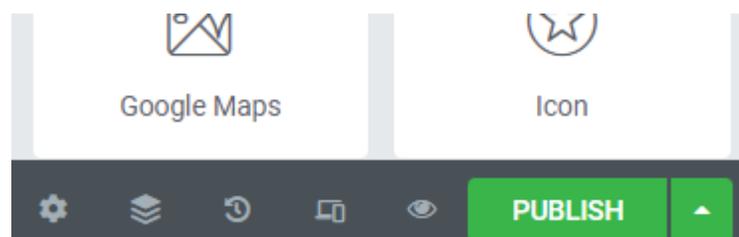
2. Click on the page you want to publish. This will open the page in the Wordpress editor.
3. Click the publish button in the top right corner.



NOTE: While publishing can be undone, it is not a simple process. Check that all content within the page is to your liking prior to publishing the page.

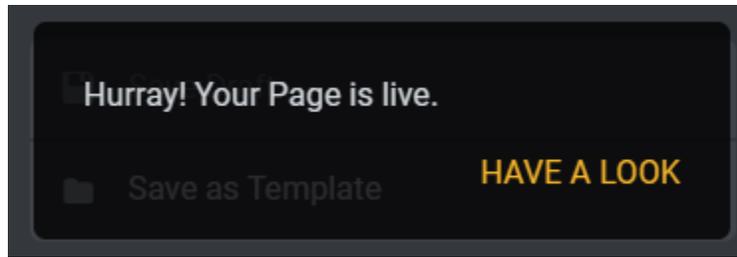
Within the Elementor editor:

1. Click the Drafts tab in the list of pages.
2. Click on the page you want to publish. This will open the page in the Wordpress editor.
3. Click Edit with Elementor. This will open the page in the Elementor editor.
4. Click the publish button at the bottom of the page.



NOTE: While publishing can be undone, it is not a simple process. Check that all content within the page is to your liking prior to publishing the page.

When completed successfully, the following message will appear:



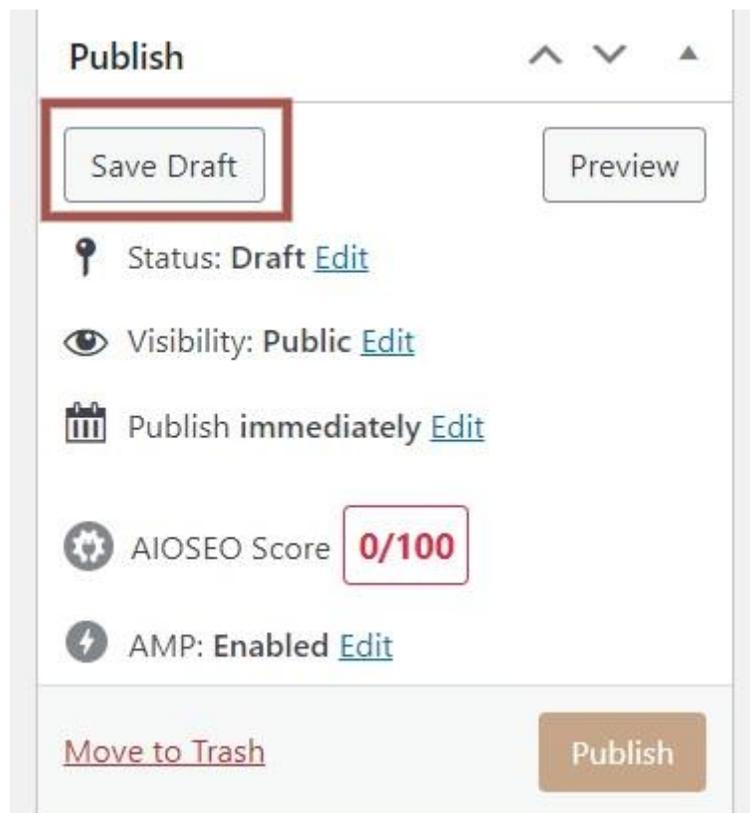
Drafts

Prior to publishing, a page is considered a draft. Drafts allow you to edit the page without the page being accessible to users.

To save a page as a draft

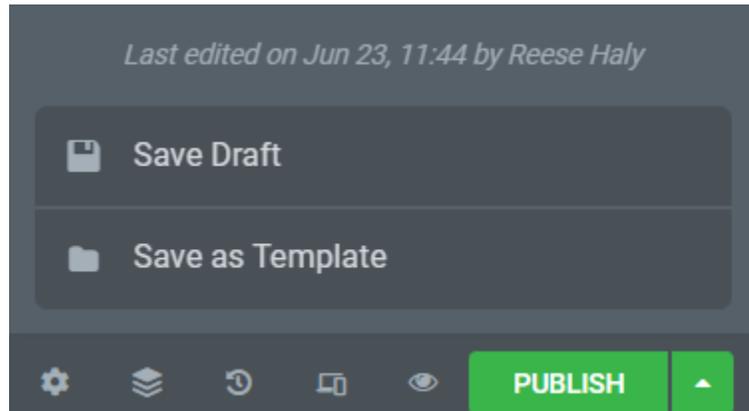
Within the Wordpress editor:

1. Click the Drafts tab in the list of pages.
2. Click on the page you want to save. This will open the page in the Wordpress editor.
3. Click Save Draft in the top right corner.



Within the Elementor editor:

1. Click the Drafts tab in the list of pages.
2. Click on the page you want to save. This will open the page in the Wordpress editor.
3. Click Edit with Elementor. This will open the page in the Elementor editor.
4. Click the up arrow button next to the publish button at the bottom of the page. This will bring up two options: Save draft or Save as template.
5. Click Save draft.



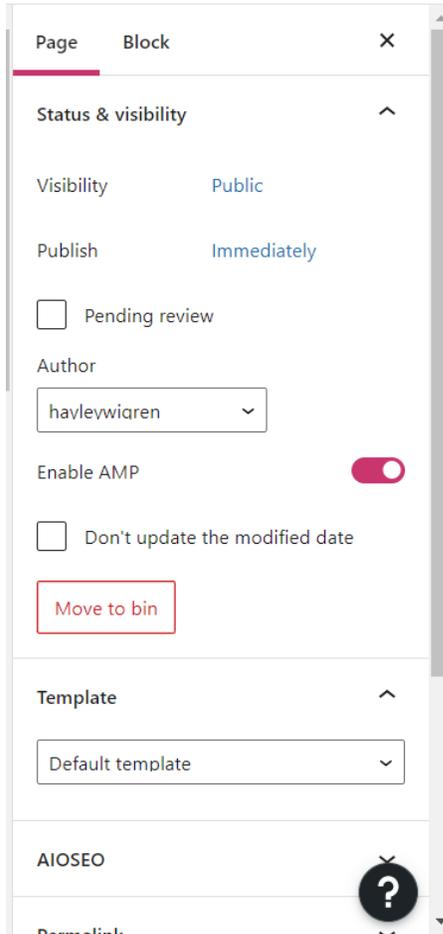
Scheduled

Pages can be published on a specified date. These pages act as drafts until the scheduled date.

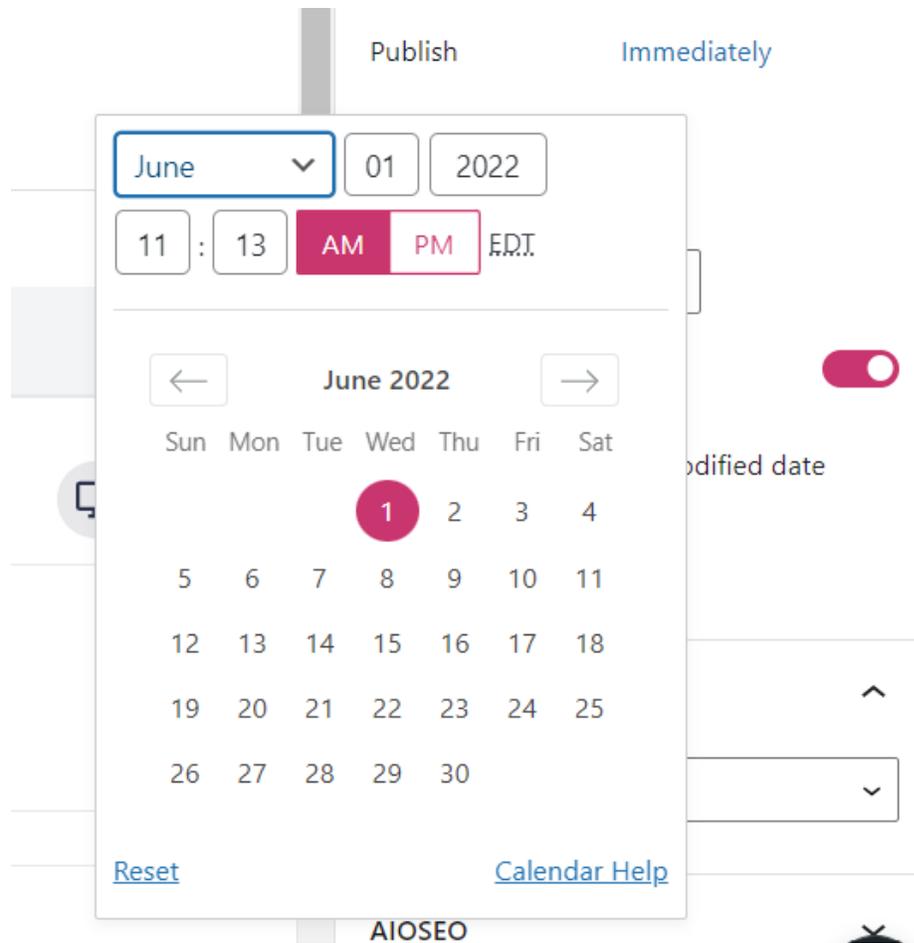
To schedule a page

1. Click the Drafts tab in the list of pages.
2. Click on the page you want to schedule. This will open the page in the Wordpress editor.

The sidebar on the page includes information on the Status and Visibility of the page, as seen below



3. Click the word **Immediately** next to **Publish**. This will bring up a calendar, as seen below:



4. Set the date. This can be done two ways:
 - Select the month from the drop-down and type the date and year in their respective boxes.
 - OR
 - Click the desired date on the calendar.
5. Set the time.
 - a. Type the hours in the first box and the minutes in the second box.
 - b. Select AM or PM depending on what time you would like to publish the page.
 - c. The calendar window will close. It will now show the selected date and time next to Publish.

Binned

Recently deleted pages are moved to the bin. From the bin, pages can be either restored or permanently deleted.

To move a page to the bin

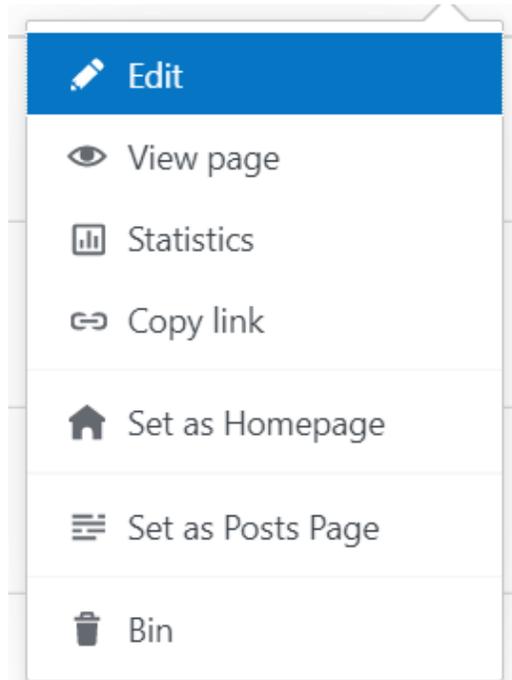
1. Access your Wordpress dashboard.
2. Select pages from the sidebar.

3. Click the ellipses for the page you wish to move to the bin, shown below:

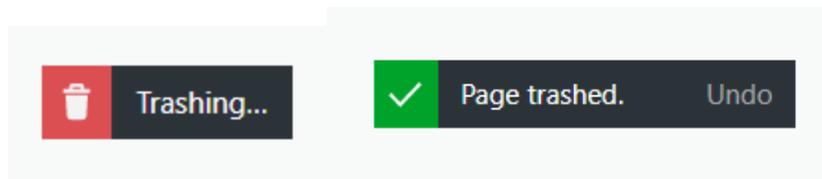
Tech Manual Test
A few seconds ago



This will pull up a few options for what to do with the page, shown below:



4. Click Bin. A box will appear saying Trashing and will change to Page Trashed once it has been successfully moved to the bin.

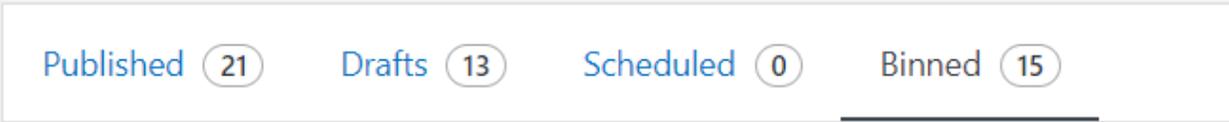


NOTE: There is an undo button in the Page Trashed box. If you have changed your mind about trashing the page, you can click undo. A box will appear saying "restoring" and will disappear once the page has been restored.

Once a page has been binned, you may either restore it or delete it.

To restore a page from the bin

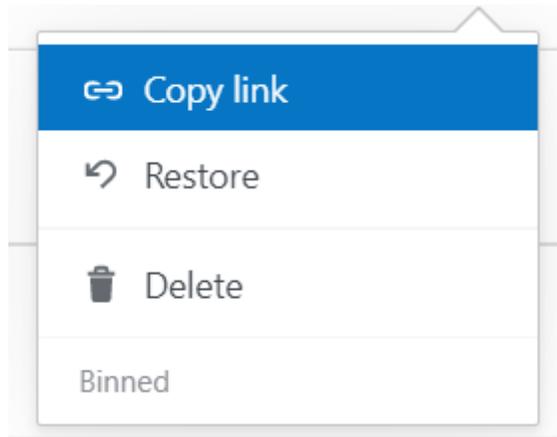
1. Access your Wordpress dashboard.
2. Select pages from the sidebar.
3. Select the Binned tab from the toolbar.



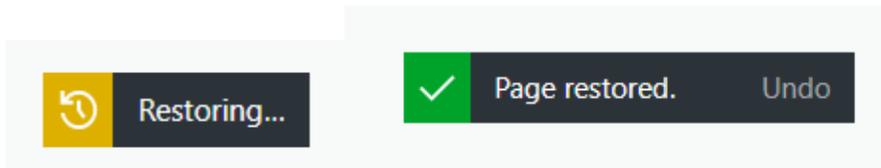
4. Click the ellipses for the page you wish to delete, shown below:



This will pull up a few options for what to do with the page, shown below:



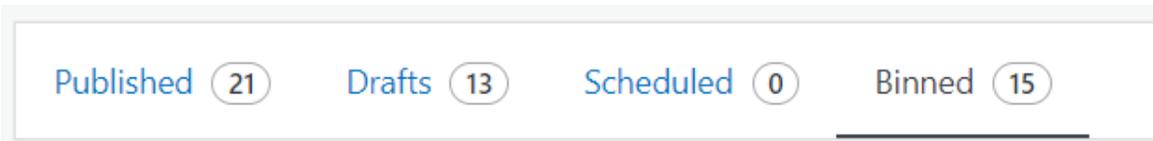
5. Click Restore. A box that says Restoring will appear. After a few seconds, the box will change to say Page Restored.



NOTE: There is an undo button in the Page Restored box. If you have changed your mind about restoring the page, you can click undo. A box will appear saying Trashing and will disappear once the page has been trashed.

To permanently delete a page from the bin

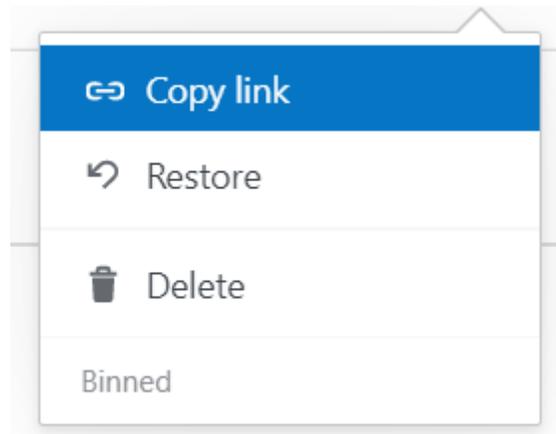
1. Access your Wordpress dashboard.
2. Select pages from the sidebar.
3. Select the Binned tab from the toolbar.



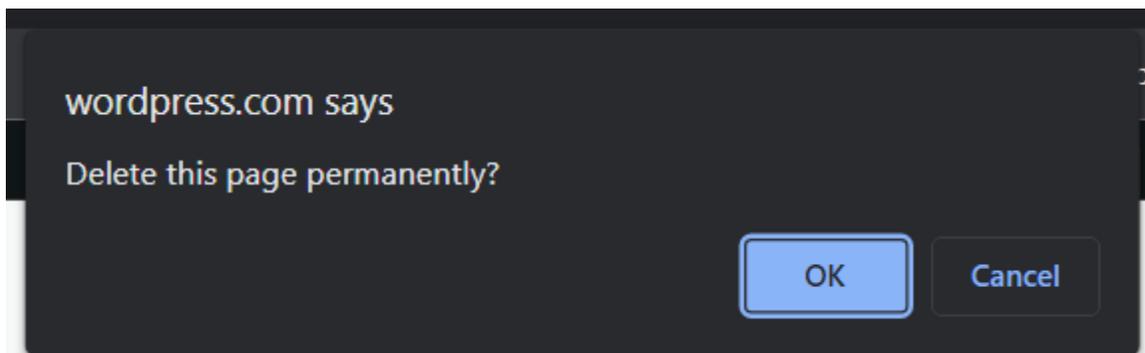
4. Click the ellipses for the page you wish to delete, shown below:



This will pull up a few options for what to do with the page, shown below:

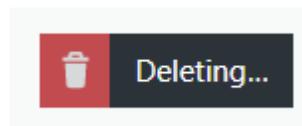


5. Click "Delete". The following popup will appear:



WARNING: Once you delete a page, you will no longer be able to restore it. All content and structure for the page will be gone permanently.

6. Click "OK" in the popup. A box will appear saying Deleting and the page will disappear after a few seconds.

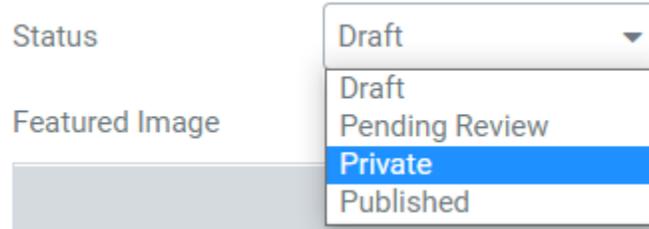


To private a page

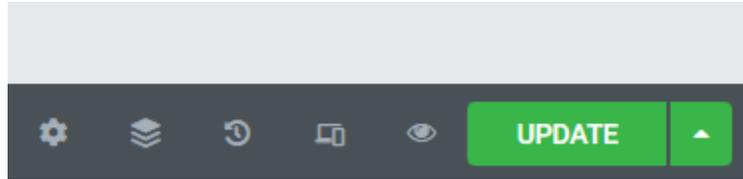
1. Access your Wordpress dashboard.
2. Select pages from the sidebar.
3. Select the page you would like to private. This will take you to the Wordpress editor.
4. Click Edit in Elementor. This will open up the Elementor editing tool.
5. Click the settings wheel in the bottom left corner. This will pull up the general settings for the page.



6. Click the drop-down next to Status and select Private.



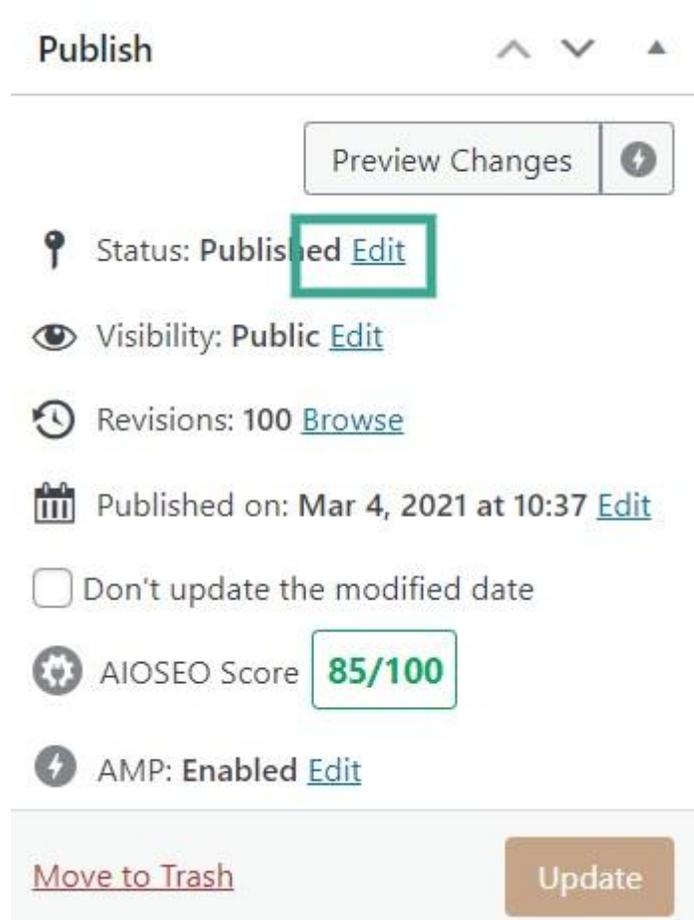
7. Click the green Update button at the bottom of the settings.



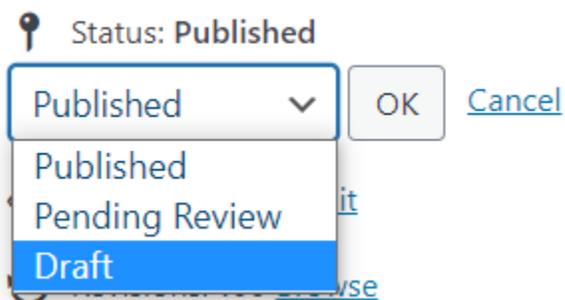
The page will now be set as private. You can check the page's status by returning to the list of pages. The word Private will appear next to the page title for all private pages.

To change a published page to a draft

1. Access your Wordpress dashboard.
2. Select pages from the sidebar.
3. Select the page you would like to move to drafts. This will take you to the Wordpress editor.
4. Click "edit" next to "published" in the "Publish" box in the top right, shown below:



5. Select “draft” from the dropdown, shown below:



6. Click “update” in the bottom right of the box to save the page as a draft

The page will now be set as a draft. You can check the page’s status by returning to the list of pages. The page should now appear in the Drafts tab.

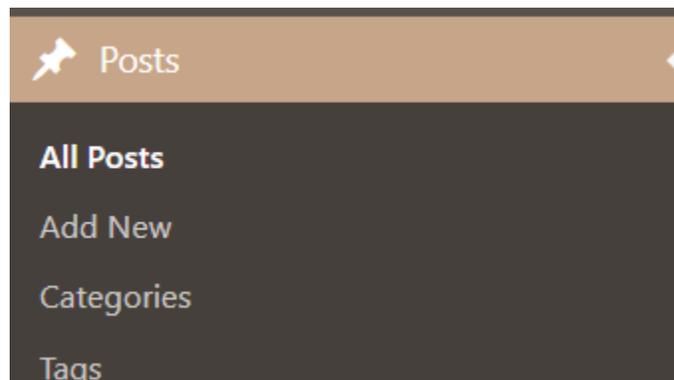
Posts

Similar to pages, posts allow you to section off information from the rest of the website. Posts have their own URL and can be accessed through either the toolbar or through external links.

Posts contain additional features that allow administrators to add categories and tags. Any content that should be included in the website's filtering system should be made as a post rather than a page. For example, posts should be used for information on external organizations.

To access your posts

1. Access your Wordpress dashboard.
2. Select posts from the sidebar. This will open the list of posts created for the website.



To create posts

1. Access your Wordpress dashboard.
2. Select posts from the sidebar.
3. Select Add New Post. The new post will appear in the Wordpress editor with the text "Add title".

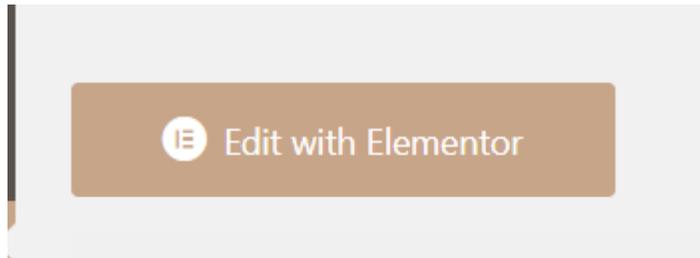


4. Click the text and type your desired post title.

Add New Post

Add title

5. Click the Edit with Elementor button at the top of the screen. This will take you to the post in the Elementor editor. You can now add all desired content to the post.



Posts are organized into four categories: published, drafts, scheduled, and binned.

Published

Published posts are the posts that are currently live on the website. A post will not go live on the website unless you have specifically hit the publish button.

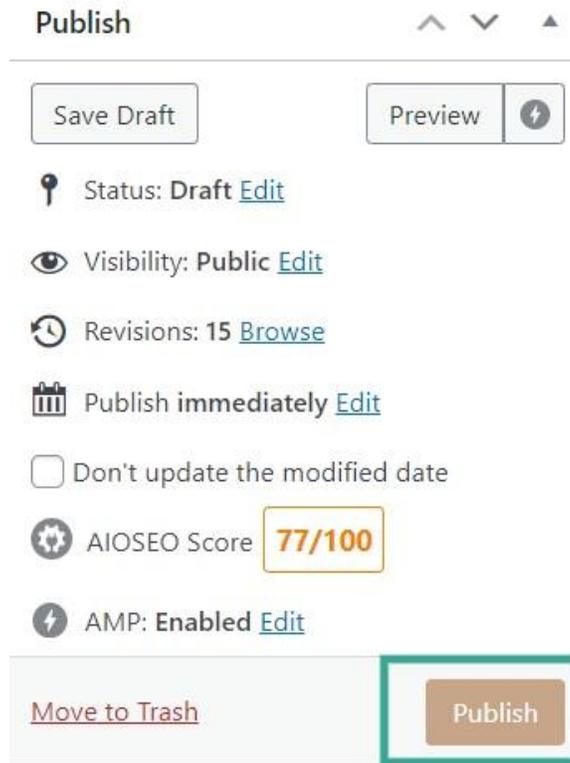
To publish a post

Within the Wordpress editor:

1. Click the Drafts tab in the list of posts.



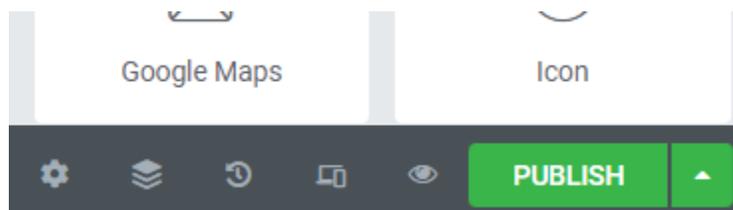
2. Click on the post you want to publish. This will open the post in the Wordpress editor.
3. Click the publish button in the top right corner.



NOTE: While publishing can be undone, it is not a simple process. Check that all content within the post is to your liking prior to publishing the post.

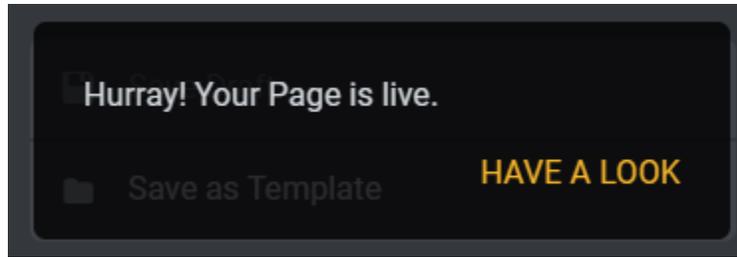
Within the Elementor editor:

1. Click the Drafts tab in the list of posts.
2. Click on the post you want to publish. This will open the post in the Wordpress editor.
3. Click Edit with Elementor. This will open the post in the Elementor editor.
4. Click the publish button at the bottom of the post.



NOTE: While publishing can be undone, it is not a simple process. Check that all content within the post is to your liking prior to publishing the post.

When completed successfully, the following message will appear:



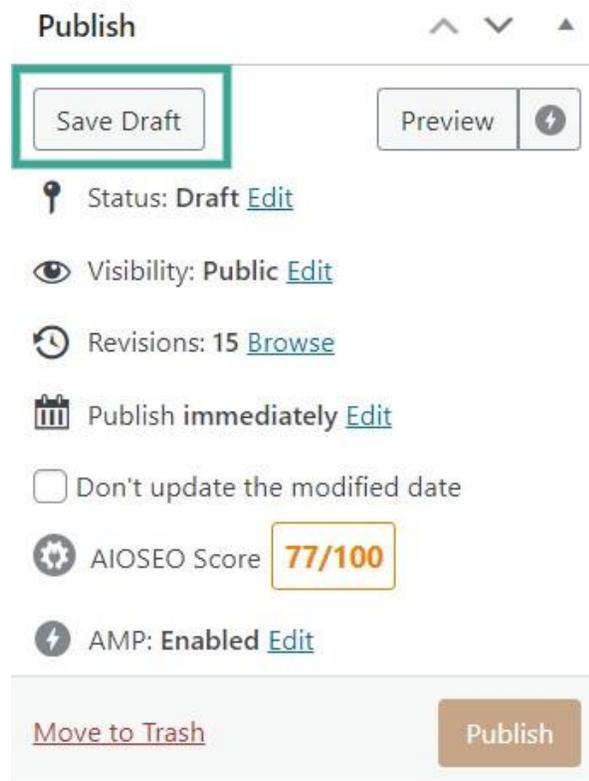
Drafts

Prior to publishing, a post is considered a draft. Drafts allow you to edit the post without the post being accessible to users.

To save a post as a draft

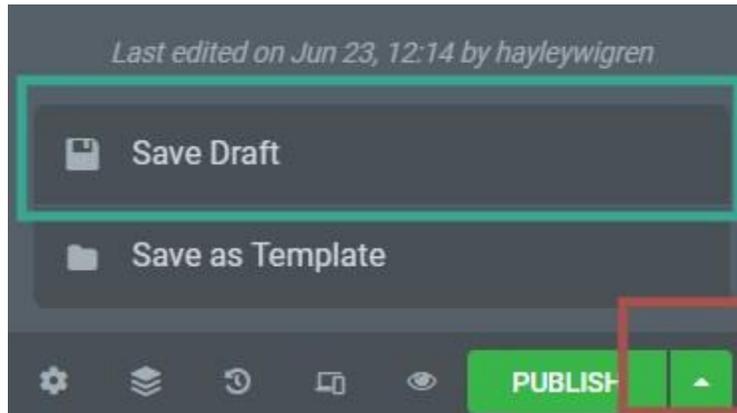
Within the Wordpress editor:

1. Click the Drafts tab in the list of posts.
2. Click on the post you want to save. This will open the post in the Wordpress editor.
3. Click Save Draft in the top right corner.



Within the Elementor editor:

1. Click the Drafts tab in the list of pages.
2. Click on the post you want to save. This will open the post in the Wordpress editor.
3. Click Edit with Elementor. This will open the post in the Elementor editor.
4. Click the up arrow button next to the publish button at the bottom of the post. This will bring up two options: Save draft or Save as template.
5. Click Save draft.



Scheduled

Posts can be published on a specified date. These posts act as drafts until the scheduled date.

To schedule a post

1. Click the Drafts tab in the list of posts.
2. Click on the post you want to schedule. This will open the post in the Wordpress editor.
3. Click edit in the “publish” section shown below. This will bring up a calendar.

Publish ^ v ▲

Save Draft Preview ⚡

🔑 Status: Draft [Edit](#)

👁️ Visibility: Public [Edit](#)

🕒 Revisions: 15 [Browse](#)

📅 Publish immediately [Edit](#)

Don't update the modified date

⚙️ AIOSEO Score **77/100**

⚡ AMP: Enabled [Edit](#)

[Move to Trash](#) Publish

📅 Publish immediately

06-Jun ▼ 23 , 2022 at 12 : 23

OK [Cancel](#)

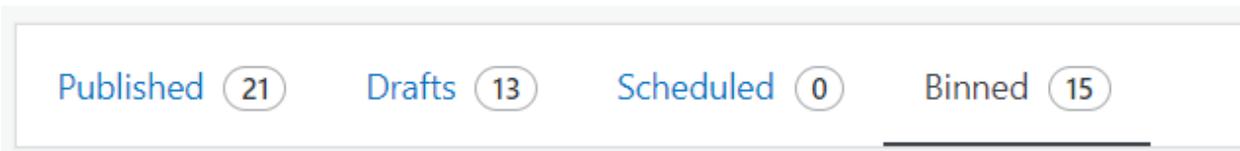
4. Set the date. This can be done two ways:
 - Select the month from the drop-down and type the date and year in their respective boxes.
 - OR
 - Click the desired date on the calendar.
5. Set the time.
 - a. Type the hours in the first box and the minutes in the second box.
 - b. Select AM or PM depending on what time you would like to publish the post.
 - c. The calendar window will close. It will now show the selected date and time next to Publish.

Binned

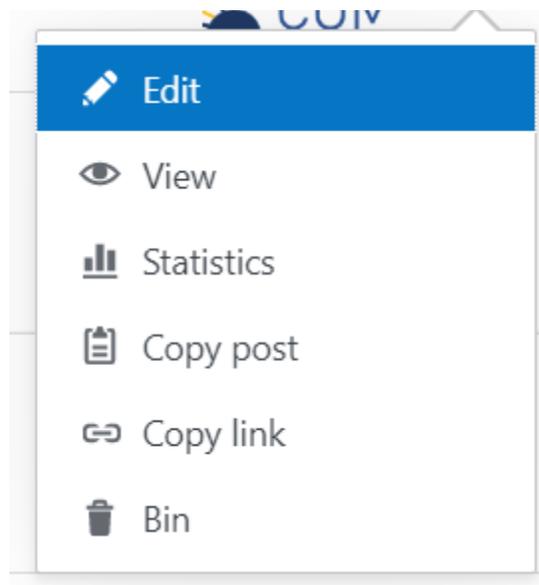
Recently deleted posts are moved to the bin. From the bin, posts can be either restored or permanently deleted.

To move a post to the bin

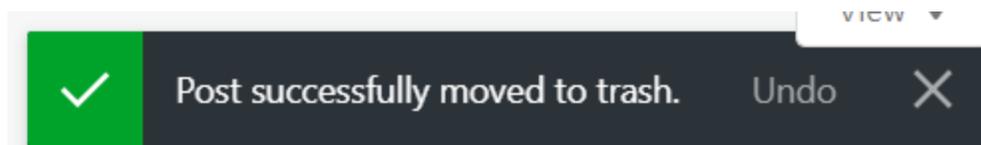
1. Access your Wordpress dashboard.
2. Select posts from the sidebar.
3. Click the ellipses for the post you wish to move to the bin, shown below:



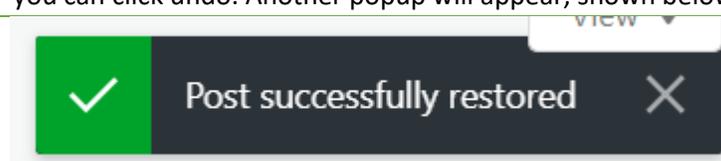
This will pull up a few options for what to do with the post, shown below:



4. Click “Bin.” The following popup will appear:



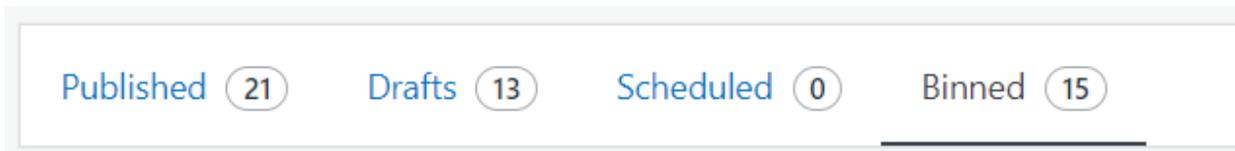
NOTE: There is an undo button in the popup. If you have changed your mind about trashing the post, you can click undo. Another popup will appear, shown below



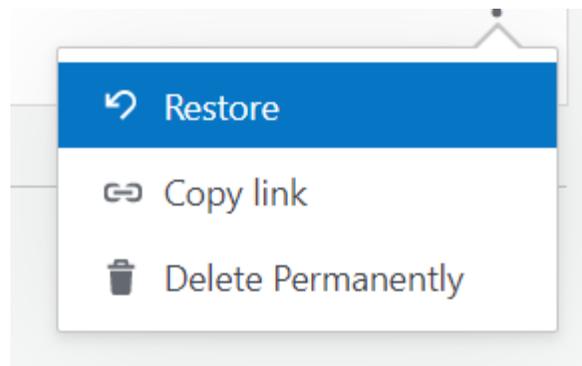
Once a post has been binned, you may either restore it or delete it.

To restore a post from the bin

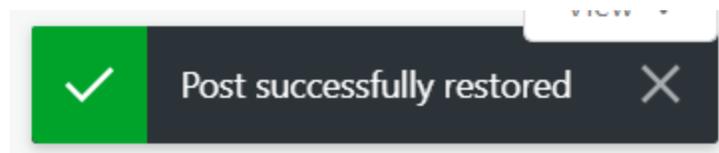
1. Access your Wordpress dashboard.
2. Select posts from the sidebar.
3. Select the Binned tab from the toolbar.
4. Click the ellipses for the post you wish to delete, shown below:



This will pull up a few options for what to do with the post, shown below:

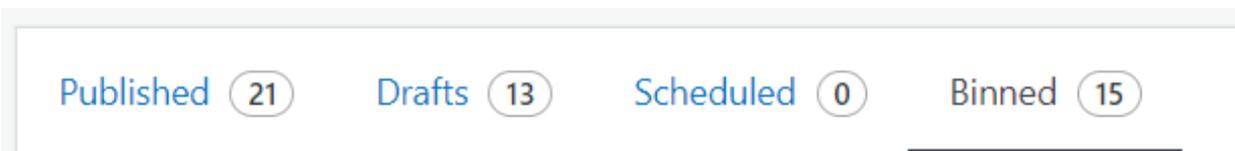


5. Click Restore. The following popup will appear:

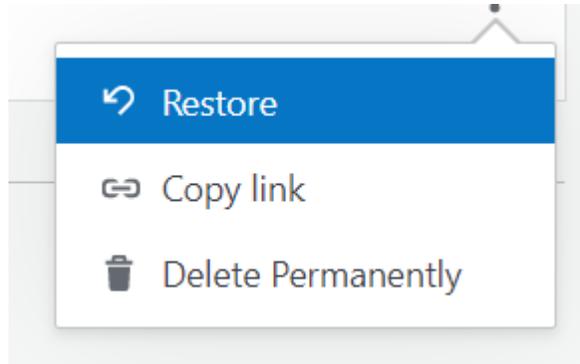


To permanently delete a post from the bin

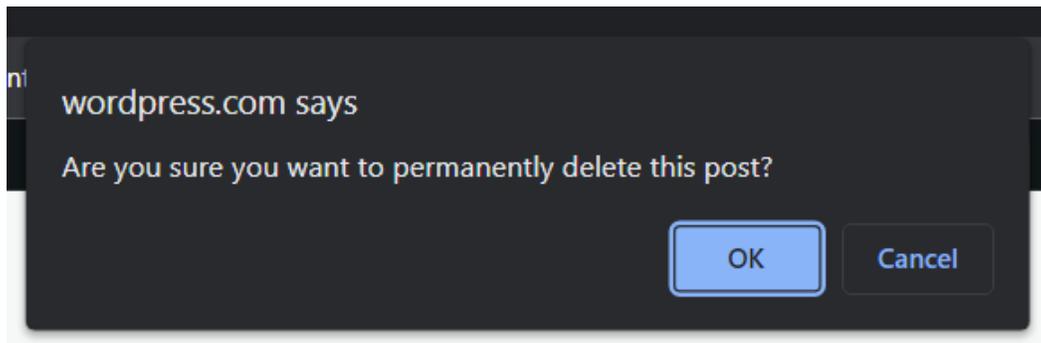
1. Access your Wordpress dashboard.
2. Select posts from the sidebar.
3. Select the Binned tab from the toolbar.
4. Click the ellipses for the post you wish to delete, shown below:



This will pull up a few options for what to do with the post, shown below:

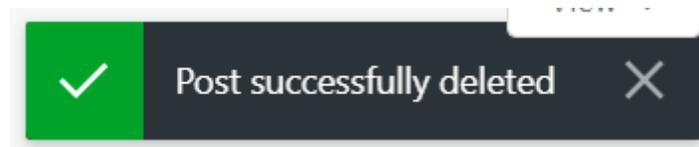


5. Click “Delete Permanently”. The following popup will appear:



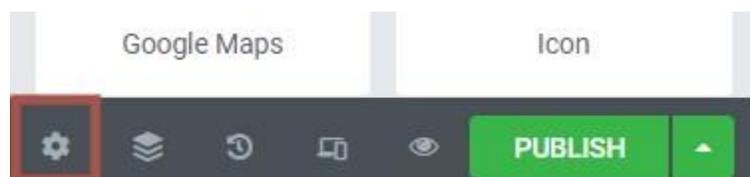
WARNING: Once you delete a post, you will no longer be able to restore it. All content and structure for the post will be gone permanently.

6. Click “OK” in the popup. The following popup will appear:

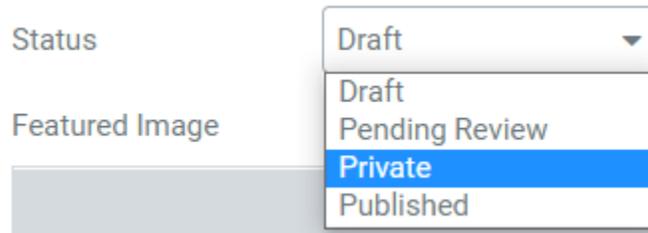


To private a post

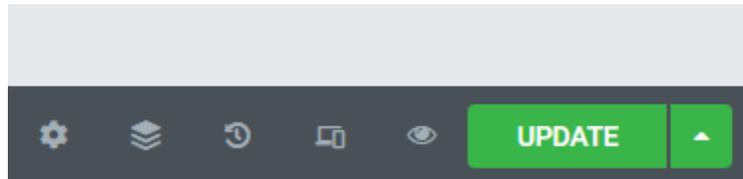
1. Access your Wordpress dashboard.
2. Select posts from the sidebar.
3. Select the post you would like to private. This will take you to the Wordpress editor.
4. Click Edit in Elementor. This will open up the Elementor editing tool.
5. Click the settings wheel in the bottom left corner. This will pull up the general settings for the page.



6. Click the drop-down next to Status and select Private.



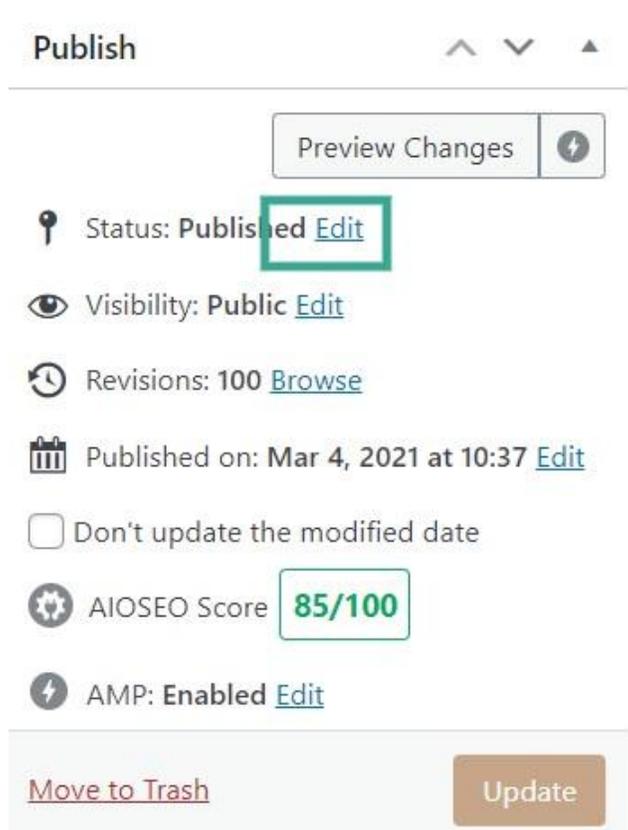
7. Click the green Update button at the bottom of the settings.



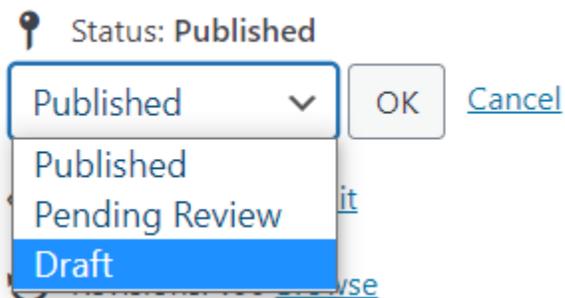
The post will now be set as private. You can check the post's status by returning to the list of posts. The word Private will appear next to the post title for all private posts.

To change a published post to a draft

1. Access your Wordpress dashboard.
2. Select posts from the sidebar.
3. Select the post you would like to move to drafts. This will take you to the Wordpress editor.
4. Click "edit" next to "published in the "Publish" box in the top right, shown below:



5. Select “draft” from the dropdown, shown below:



6. Click “update” in the bottom right of the box to save the page as a draft

The post will now be set as a draft. You can check the post’s status by returning to the list of posts. The post should now appear in the Drafts tab.

Templates

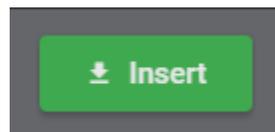
Templates allow you reuse the same structure without having to input all the individual elements multiple times. Templates are most helpful for types of pages and posts that appear frequently throughout the website, such as the organisation posts.

To insert a template into a page or post

1. Open a page or post in the Elementor editor.
2. Click on the folder icon in the empty widget, shown below. This will pull up the website's template library.



3. Find the template you want in “Blocks,” “Pages,” or “My Templates.”
4. Hover over the desired template.
5. Click the green “Insert” button, shown below:



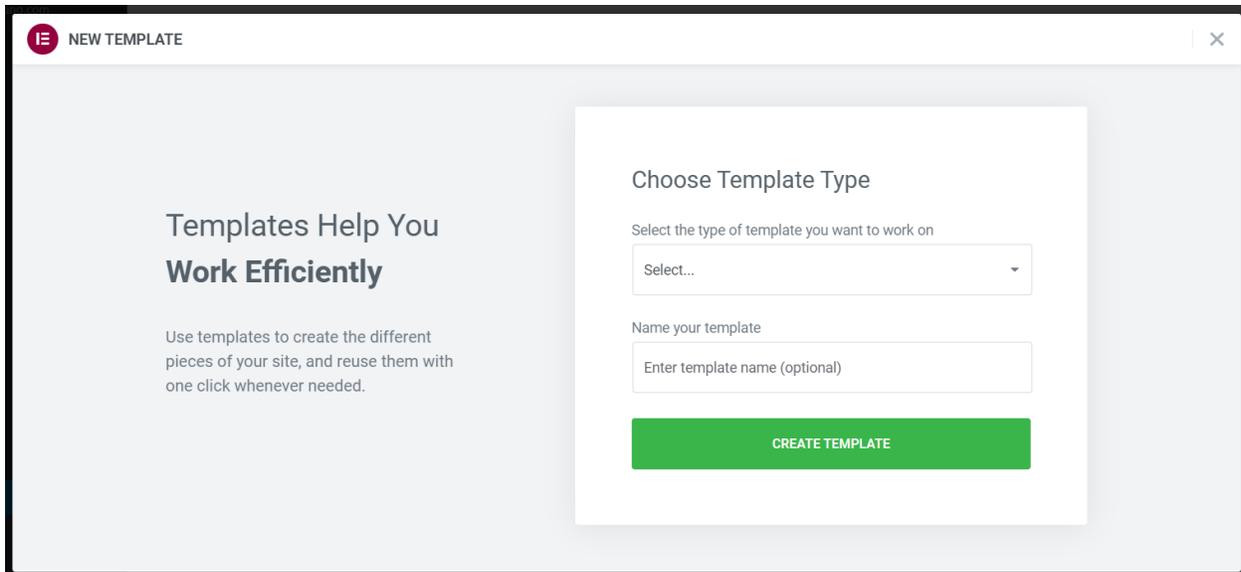
The template will be inserted into the page or post.

Templates can be created and managed either from the Template page in the Wordpress dashboard or directly within a page or post. In this section, we will explain both methods for creating and managing templates.

Wordpress Dashboard

To create a template

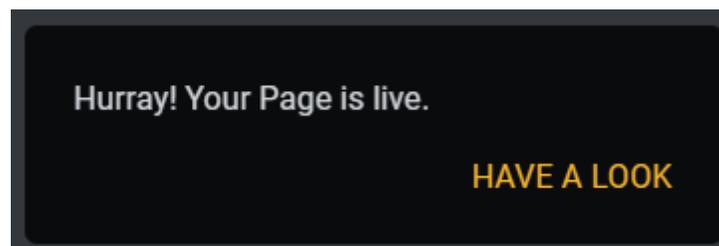
1. Scroll down and click “Templates” in the sidebar.
2. Click the “Add New” button at the top left of the screen. The following pop-up will appear:



3. Select the type of template you want to create from the drop-down. There are three types of templates:
 - Page
 - Section
 - Landing Page

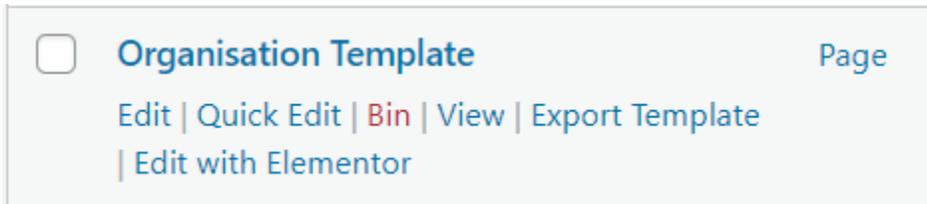
Each type of template is functionally identical, so this choice does not matter too much.

4. Enter the template name in the “Name your template” box.
5. Click ‘Create Template.’ This will open an empty template in the Elementor editor.
6. Edit the template in Elementor. If you do not know how to edit in Elementor, go to page 4
7. When finished, click the green “Publish” button at the bottom of the Elementor editor. When successful, you will see the following pop-up:



To preview a template

1. Scroll down and click “Templates” in the sidebar.
2. Hover over the template you would like to preview. This will bring up several options, shown below:

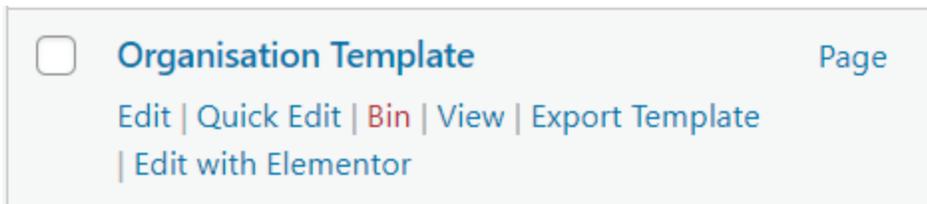


3. Click “View.” The page will reload to show the template preview.

NOTE: All template previews will include the sidebar from the filter system. The sidebar will not appear when the template is added to a page or post unless the sidebar has been applied to the full page or post.

To edit a template

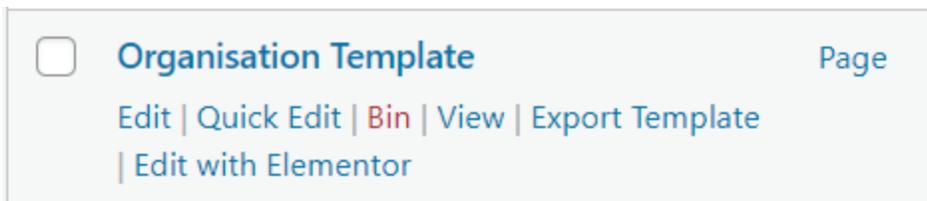
1. Scroll down and click “Templates” in the sidebar.
2. Hover over the template you would like to edit. This will bring up several options, shown below:



3. Click “Edit with Elementor.” This will open the template in the Elementor editor.
4. Edit the template to your liking. If you do not know how to edit content in Elementor, go to page 4

To delete a template

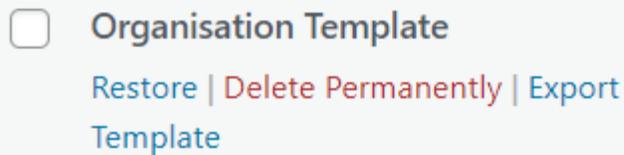
1. Scroll down and click “Templates” in the sidebar.
2. Hover over the template you would like to delete. This will bring up several options, shown below:



3. Click “Bin.” This will move the template to your bin.
4. Click “Bin” above the list of templates, shown below:



5. Hover over the template you would like to delete. This will bring up several options, shown below:



WARNING: Deleting a template cannot be undone. If you changed your mind about deleting the template, this is your last chance to restore the template. To restore the template, click “Restore.” The template will be removed from the bin.

6. Click “Delete Permanently.” The template will be deleted.

Within Pages and Posts

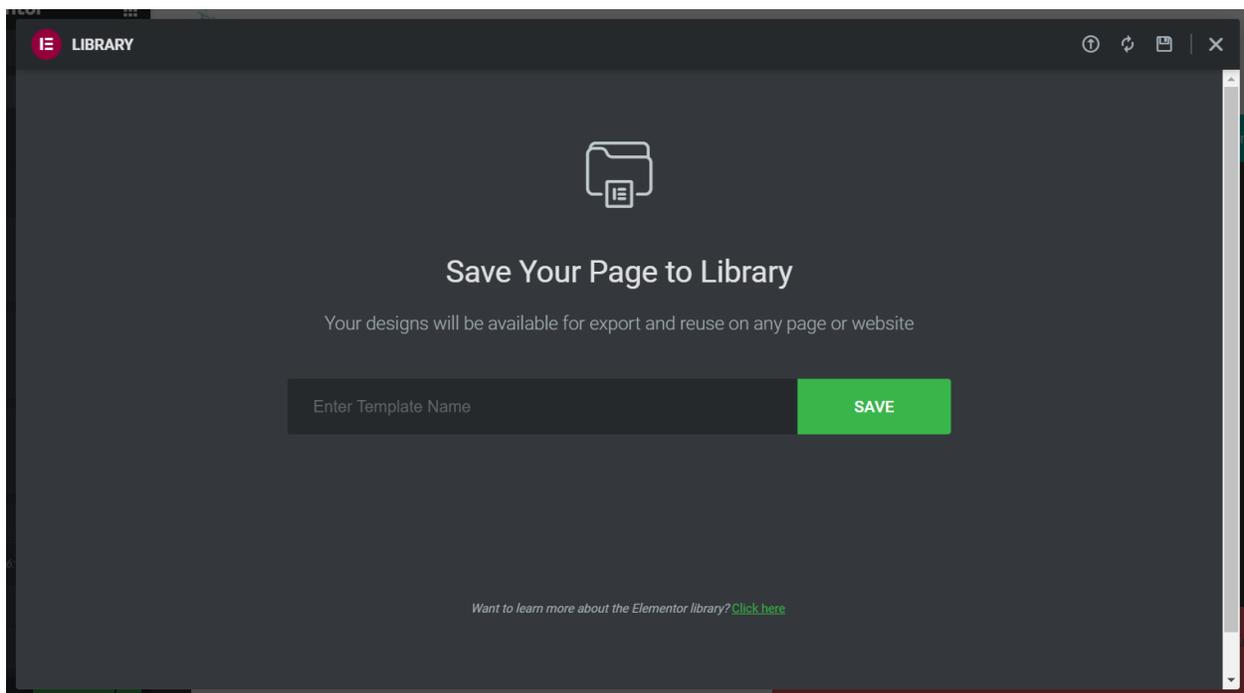
You can also create templates from existing pages and posts.

To save a page or post as a template

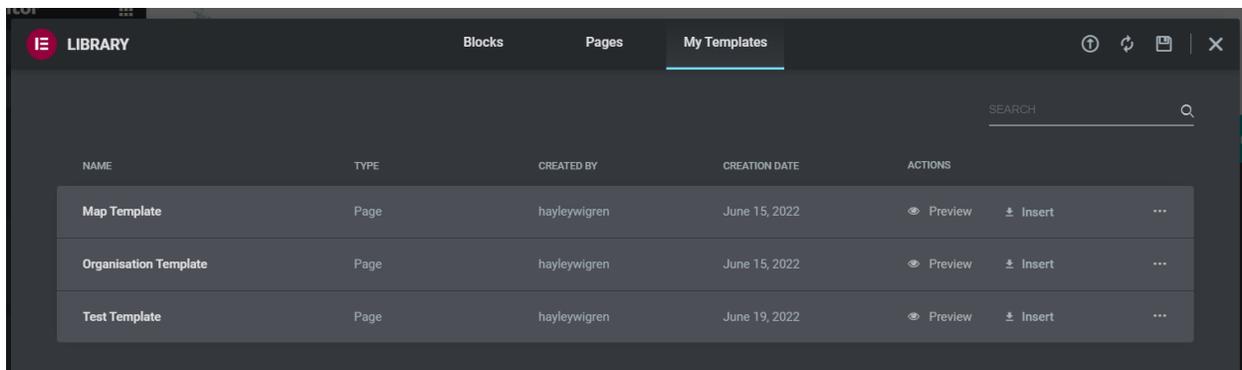
1. Open the desired page or post in the Elementor editor.
2. Click the up arrow next to the “Publish” or “Update” button, shown below:



3. Click “Save as Template.” This will open the library window, shown below:

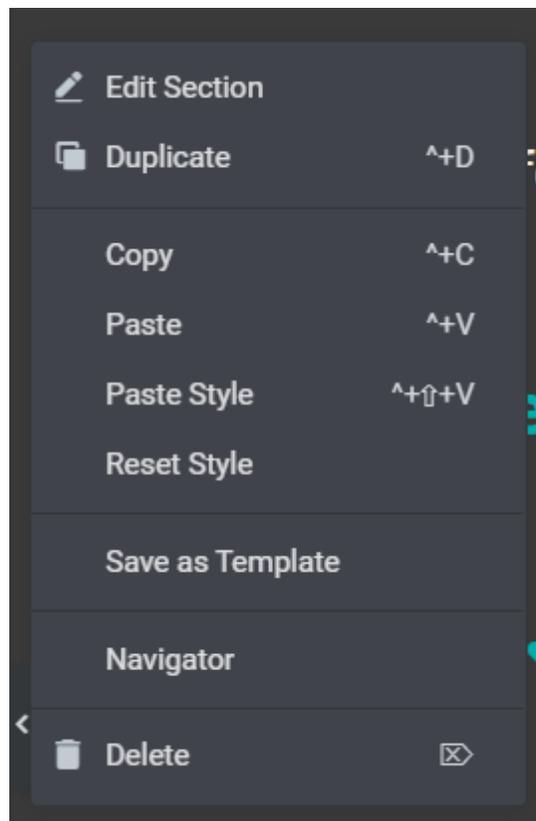


4. Enter the name for your template in the box.
5. Click the green “Save” button. When successfully saved, the window will show your custom templates in the template library, shown below:

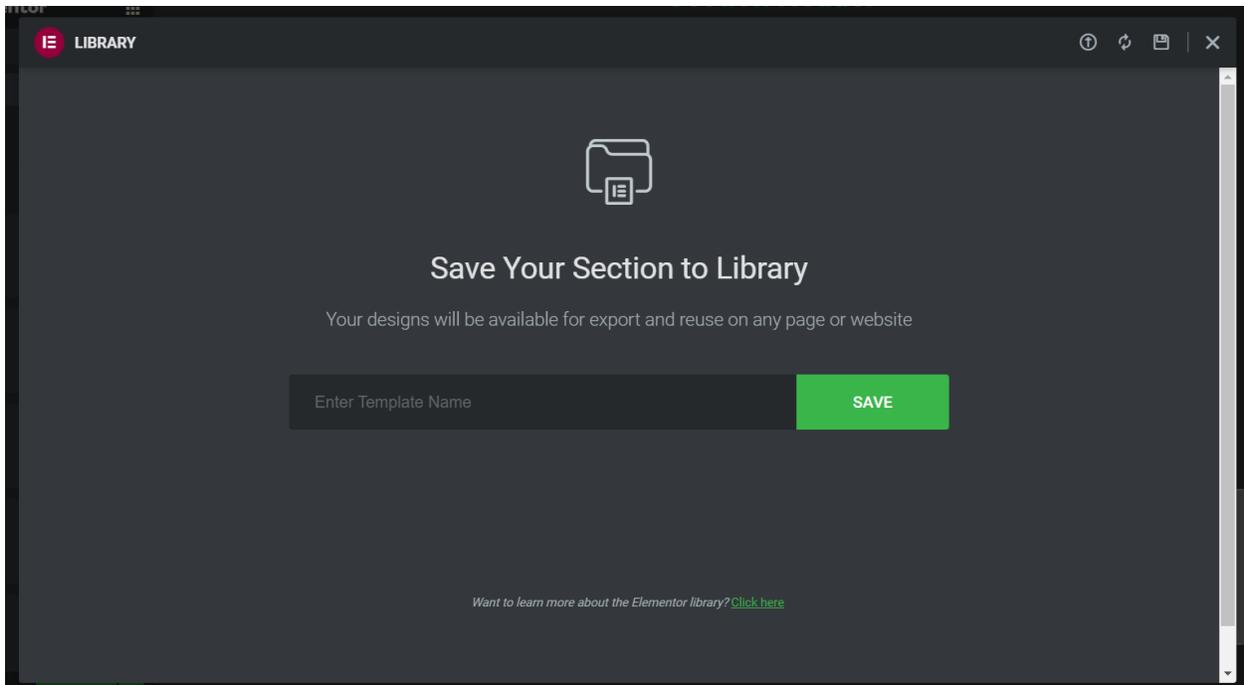


To save a section as a template

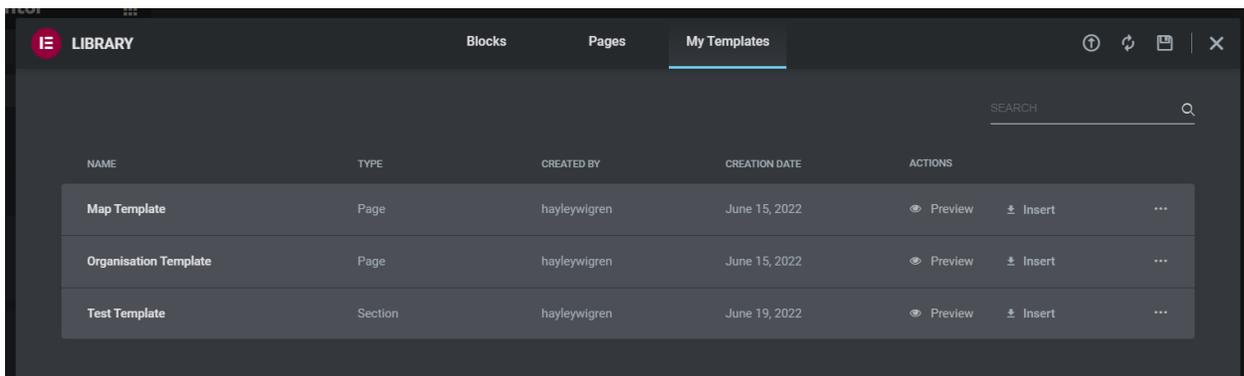
1. Open the desired page or post in the Elementor editor.
2. Right click the section you want to save as a template. An options menu will appear, shown below:



3. Click “Save as Template.” This will open the library window, shown below:



4. Enter the name for your template in the box.
5. Click the green “Save” button. When successfully saved, the window will show your custom templates in the template library, shown below:



To use a template

1. Open the page or post you would like to apply the template to in the Elementor editor.
2. Click on the folder icon in the empty widget, shown below. This will pull up the website’s template library.



3. Click “My Templates.”
4. Click on your desired template.
5. Click “Apply.” This will add the template to the post.

6. Edit all placeholder information. If you do not know how to edit content in Elementor, go to page 4

You can preview your templates within the page or post.

To preview a template

1. Open a page or post in the Elementor editor.
2. Click on the folder icon in the empty widget, shown below. This will pull up the website's template library.

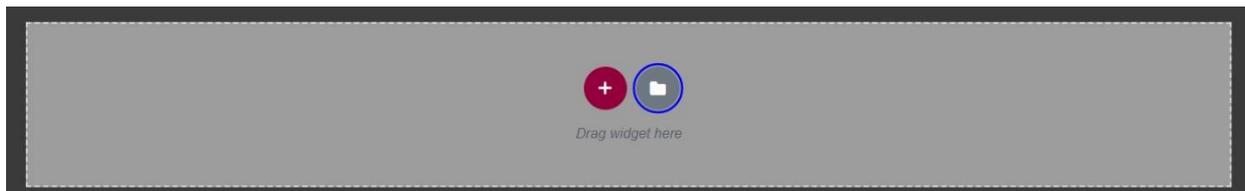


3. Click "My Templates." This will bring up all custom templates.
4. Click "Preview" next to the desired template. This will open the template in a new tab.

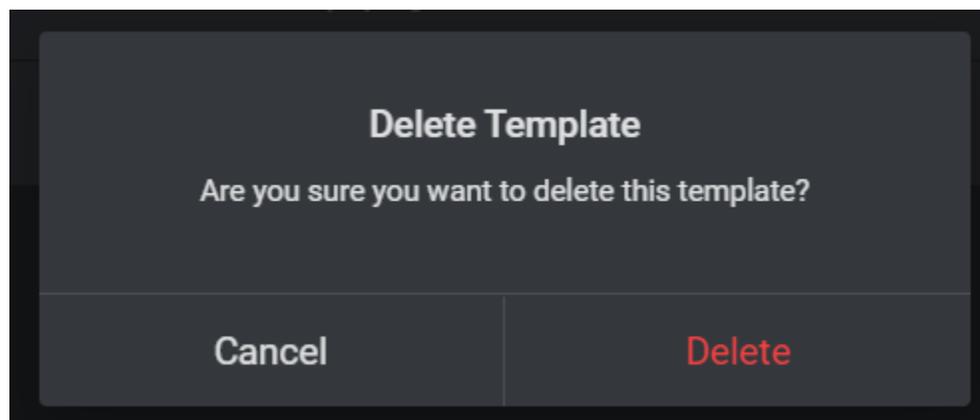
NOTE: All template previews will include the sidebar from the filter system. The sidebar will not appear when the template is added to a page or post unless the sidebar has been applied to the full page or post.

To delete a template

1. Open a page or post in the Elementor editor.
2. Click on the folder icon in the empty widget, shown below. This will pull up the website's template library.



3. Click "My Templates." This will bring up all custom templates.
4. Click the three dots to the far right of the desired template.
5. Click "Delete." The following pop-up will appear:



WARNING: Deleting a template cannot be undone. Be absolutely sure you would like to delete the template before moving to the next step.

6. Click “Delete.” The template will be deleted

Organisation Posts

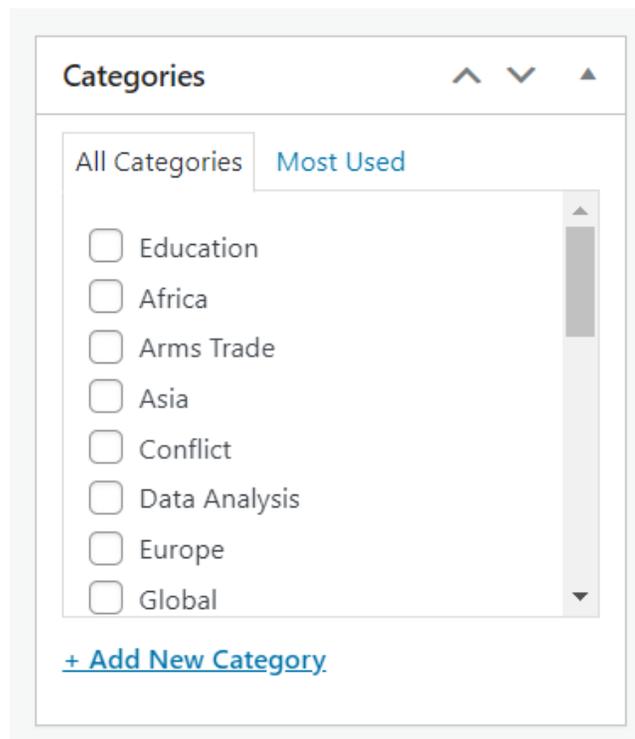
The key feature of the GWTP website is its database of open source verification organisations. As such, it is important to know how to create posts for any new organisations being added to the website. The organisation posts are based off a template that can be easily filled in and published.

To create an organisation post

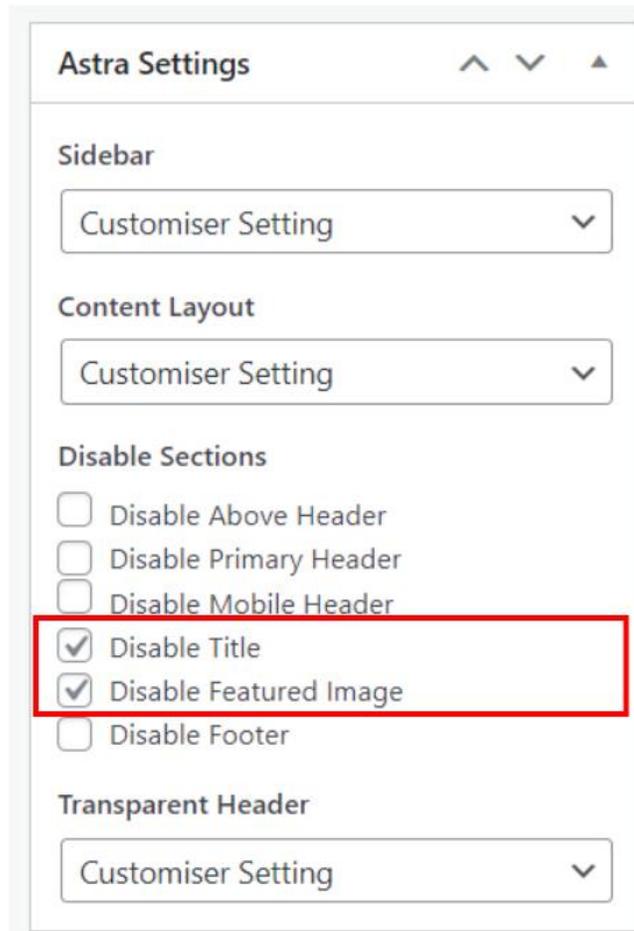
1. Create a post. If you do not know how to do this, follow the post procedure on page 32
2. Type the organisation name in the title box.

NOTE: if you are linking to a specific project, name the post after the project instead of the organisation

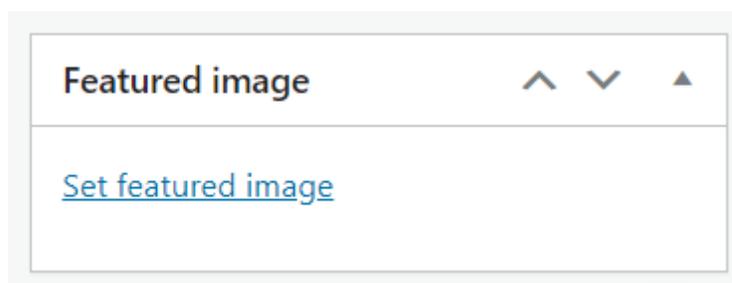
3. Scroll down until you see “Categories” on the right of the screen, shown below:



4. Select all categories that are relevant to the organisation.
5. Scroll down until you see “Astra Settings” on the right of the screen.
6. Select the following settings from the Astra settings:



7. Scroll down until you see “Featured image” on the right of the screen, shown below:



8. Click “Set featured image.” This will bring up the website’s media library.

9. Select or upload the image you would like to feature.

10. Click the “Set Featured Image” button.

11. Scroll back up to the top of the page and click the “Save Draft” button, shown below:



These settings will allow the post to appear within the filter system. The post will appear in the filter system with the organisation name and logo, along with a read more button.

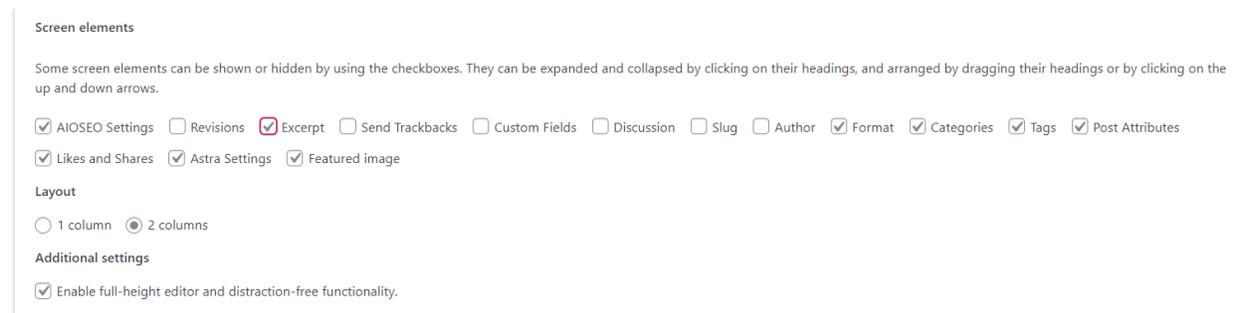
NOTE: If you would like the post to have a short description in the filter system, you will need to add an excerpt. We did not add excerpts since we would need approval from each organisation.

To add an excerpt

1. In the post settings, click “Screen Options” in the top right corner of the screen, shown below. This will pull down a list of screen elements.



2. Select “Excerpt” from the list, shown below. This will give you the option to add an excerpt to the post.



3. Scroll to the bottom of the page to the empty “Excerpt” box, shown below:



4. Type or paste the desired excerpt in the box.
5. Scroll back up to the top of the page and click the “Save Draft” button, shown below:



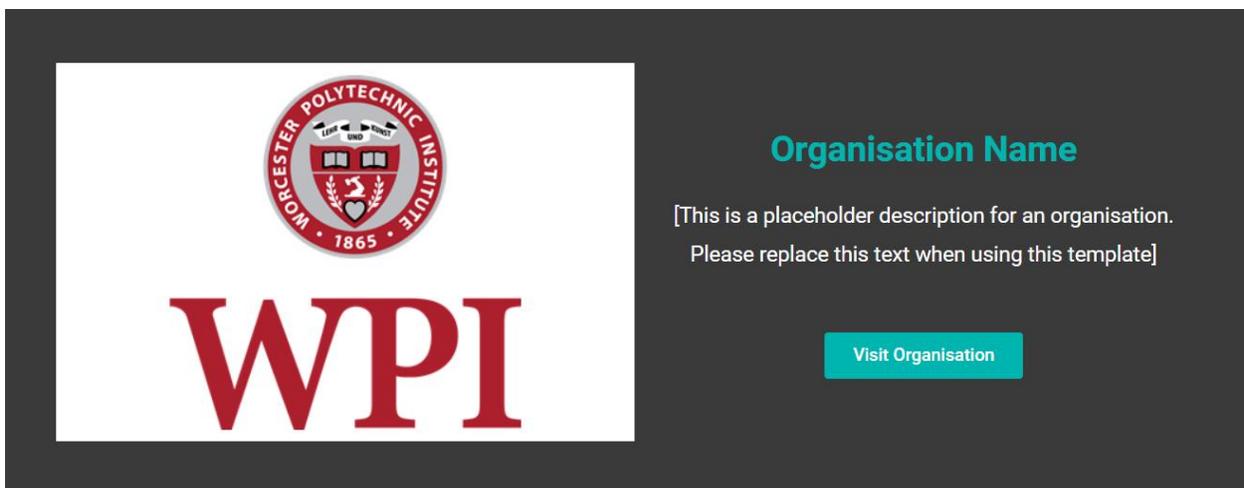
Now that you have created the post and added the proper settings, you can edit the content of the post.

To edit the post content

1. Click “Edit with Elementor.” This will take you to the empty post in the Elementor editor.
2. Click on the folder icon in the empty widget, shown below. This will pull up the website’s template library.



3. Click “My Templates.”
4. Click “Organisation Template.”
5. Click “Apply.” This will add the template to the post as shown below:



6. Edit all placeholder information. If you do not know how to edit content in Elementor, go to page 4
7. Click “Publish.” The post will now be live on the website and can be searched for in the filter system.

Previews

This section will cover two important topics for ensuring mobile and tablet compatibility: responsive editing and previews.

Responsive Editing for Tablet and Mobile

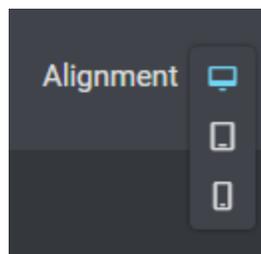
Elementor allows you to alter certain elements within specific views (desktop, tablet, or mobile) without changing them in other views. This is referred to as responsive editing.

Not all element settings can be adjusted for different screen sizes. When editing an element, all settings that can be changed for different screen sizes will have a desktop icon next to them, shown below:



To adjust responsive settings

1. Click on the desktop icon. This will bring up icons for tablet and mobile views, shown below:



2. Click on the icon for the view you would like to edit. The page will resize in the editor to match the selected view.
3. Make any desired adjustments to the settings.

Previews

When editing pages or posts, you may want to preview your changes as they would appear within the website.

To preview pages or posts

1. Open the desired page or post in the Elementor editor.
2. Click the preview button, shown below:



The preview will open in a new tab.

In Elementor, you can preview changes for different screen sizes — desktop, tablet, and mobile.

To preview pages or posts for tablet and mobile

1. Open the desired page or post in the Elementor editor.
2. Click the responsive mode button, shown below:



A bar will appear at the top of the page to allow you to choose a different screen size:



3. Click on the desired view (desktop, tablet, or mobile). The page will resize to the desired screen size.

After any changes have been made to the website, you may want to preview the whole website.

You are able to preview the website in all three views: desktop, tablet, and mobile.

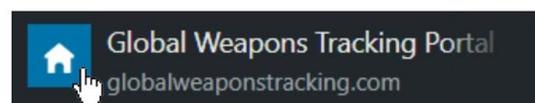
To preview the website in Wordpress

1. Navigate to your Wordpress dashboard.
2. Hover over the icon next to the website name at the top of the sidebar. The icon will turn into a home icon, shown below:

Normal



Hover



3. Click on the home icon. This will bring up the website preview within the Wordpress dashboard. All buttons and links will be functional in the preview so you can ensure all elements are working properly.

The default preview in Wordpress uses the desktop view.

To change the screen size for the previews

1. Click on the desktop dropdown in the top left corner, shown below:



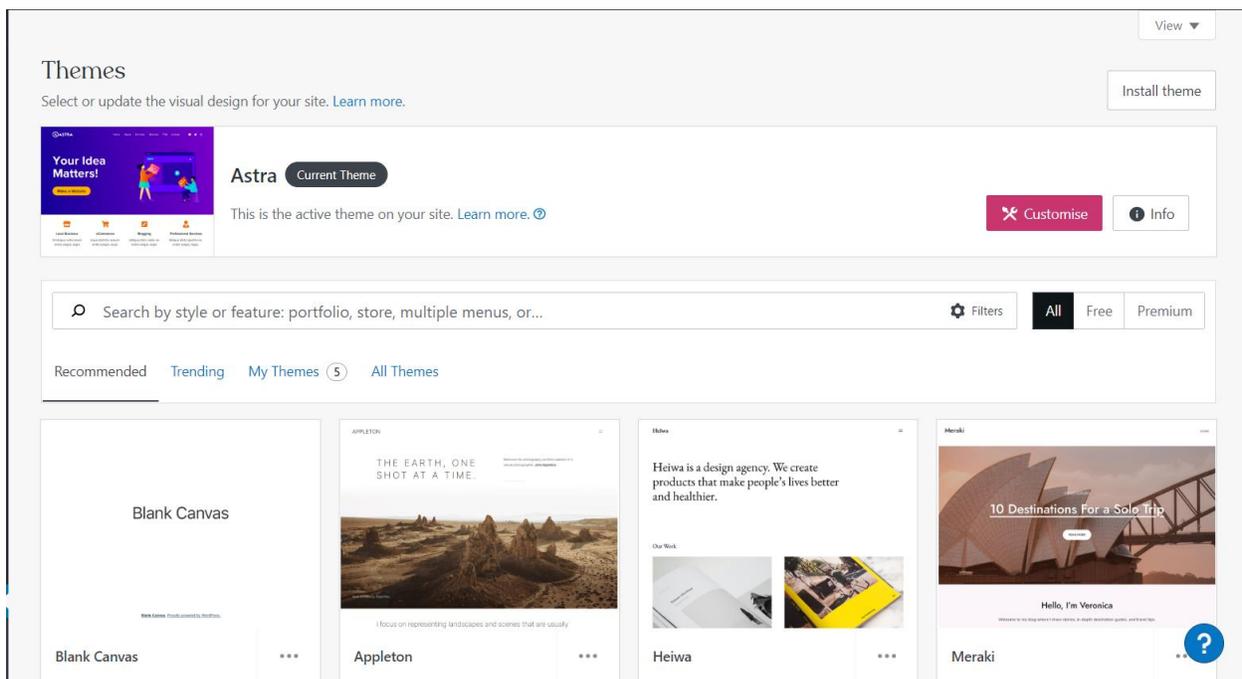
2. Select your desired view from the dropdown (tablet or mobile). The dimensions of the website preview will change to match the selected view.

Themes

Wordpress uses themes as the base stylization of your website. Each website can have one theme installed, and that theme determines how webpage elements like headers, footers, menus, sidebars, and widgets are formatted and displayed.

To add a theme

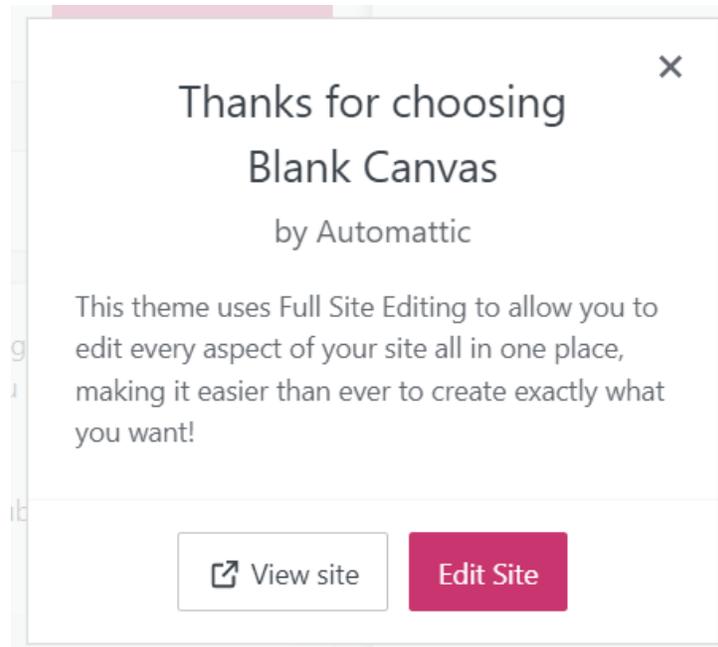
1. Navigate to your Wordpress dashboard.
2. Scroll down and click “Appearance” in the sidebar. This will open up directly to the “Themes” page, shown below:



3. Scroll through the available themes OR search a specific theme using the search bar.
4. Click on the desired theme. This will open the information on the theme.
5. If you would like to preview the theme prior to installing, click “Open Live Demo.” This will open a preview window for the theme.
6. Click the “Activate this design” button, shown below:



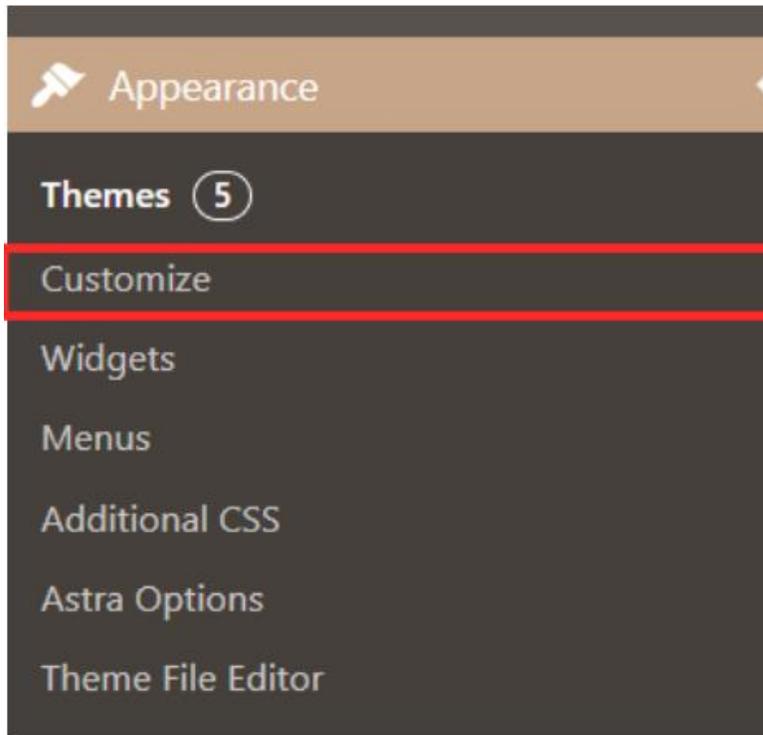
Once activation is complete, the following pop-up will appear and the website’s theme will be changed:



The Global Weapons Tracking Portal uses the Astra theme. We chose Astra for its simplicity and compatibility with Elementor. This section will explain how to edit Astra’s design settings.

To edit site settings for Astra

1. Navigate to your Wordpress dashboard
2. Scroll down and click “Appearance” in the sidebar.
3. Select “Customise” from the appearance menu, as shown below:



This will take you to the homepage in the theme editor.

Below are all the settings in the theme editor:

You are customizing



Global Weapons Tracking Por...

Active theme

Astra

Change

More Options Available in Astra Pro! >

Typography >

Global >

Header Builder >

Breadcrumb >

Blog >

Sidebar >

Footer Builder >

Performance >

Site Identity >

Menus >

Widgets >

Homepage Settings >

SCSS Compiler >

Additional CSS >

Typography

In typography, you can change the default font, font size, font colour, etc. for paragraphs and headings across the entire site. We did not change any of the typography settings away from the default as we found it easier to change the typography of text within the Elementor editor to better fit the page elements.

Global

Global settings alter the following options to apply to the whole website: typography, colours, container, buttons, and block editor.

- **Typography:** See the typography section above
- **Colour:** From here you can change the colours for the entire website including theme colour, background colour, text colour, etc. We set the theme colours of the website to be the SCRAP Weapons teal (#00b5af) and made the background colour a dark grey (#3a3a3a).
- **Container:** In Astra, content is contained within a box called a container. There are four container layout options:

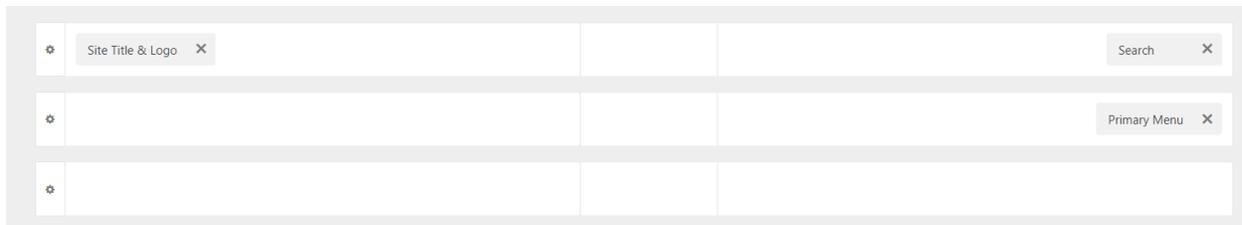
Layout	Description
Boxed	Puts a box around the main content, and a different box around each element in the sidebar
Content Boxed	Puts a box around the main content and a separate box around the sidebar
Full Width/Contained	Puts a box around all elements and the sidebar
Full Width/Stretch	Extends the box all the way to encompass the whole page

NOTE: The content background colour and the website background colour are currently set to be the same, so the box around content is not visible regardless of the setting. If you were to change the colours of the site/content background, container settings should be used to correctly style the website.

- **Buttons:** in buttons you can change the default shape, colour, size, etc. of buttons on the website. However these button settings don't work with elementor, so they are redundant and should not be used unless you stop using Elementor.
- **Block editor:** In block editor, you can set the default spacing for blocks in the Wordpress editor. Like buttons, these settings don't interact with elementor blocks, so changing them will do nothing.

Header Builder

In header builder, you can create, stylise and add components to the header of the website. The header is used across the entire website and is one of the most important web design features. When editing the header, you'll see three rows and three columns at the bottom of the screen, shown below:



You can add any number of elements to any of the cells in the grid. The columns will decide if the element displays on the left, centre or right of the header. The rows decide if the element is displayed on the top, middle, or bottom row of the header. Row settings can be accessed using the gear icon to the left of the row. The most important elements we have added to the header are “Site title & logo,” “Primary menu,” and “Search.” Other elements that you may want to use include “Button,” “Social media”, and “HTML” (text) sections. All of these elements can be edited by clicking on them in the grid.

- Site title & logo: In site title & and logo settings, you can change the logo, the logo width, the site title, the site title font size and colour, and footer credits.
- Primary Menu: In primary menu settings, you can change menu width, text and background colour, menu and submenu styling spacing and animations. To change the content of the primary menu see 63
- Search: In search settings, you can change the size of the search icon

Breadcrumb

Breadcrumbs are a trail of links that let you easily go back to the pages you were previously on. An example of this would be “Home → Open Source Verification → VERTIC”. The Global Weapons Tracking Portal does not currently use breadcrumbs as there is not enough content to justify it. If you continue to expand the website, adding breadcrumbs may be an easy way to increase navigability. In the breadcrumbs settings, you can choose its placement on the heading, what arrows separate each link, font, text colour, and which pages you would like to disable the breadcrumb links on.

Blog

Blog settings control post settings. The only posts on the website are the organisation posts, so the settings in Blog will only affect organisation pages.

- **Blog/archive:** Wordpress allows for one page to be designated as the “blog” page. A blog page displays all your posts in chronological order. We do not want the posts displayed like this, so we have not created a blogs page. If you do add a blogs page you can change the settings here. The settings are very similar to single post settings, discussed below.
- **Single post:** In single post settings you can change the width of content, title font size, and choose whether or not the featured image and title are displayed on each post.

Sidebar

In sidebar settings, you can choose where and on which type of pages the sidebar is displayed. The filter system is currently populating the sidebar, therefore the sidebar is turned off by default for all pages and posts except for the open source verification page. If you would like to change the content inside of the sidebar, see 69

Footer Builder

Very similar to the header builder, here you can change the elements displayed within the footer of the website by placing specific elements into the grid on the bottom of the screen. The elements we have used to create the footer are an HTML section for the SCRAP Weapons logo, name, and email; social media buttons for SCRAP Weapons; and a footer menu. You can also add a copyright and widgets to the footer as well.

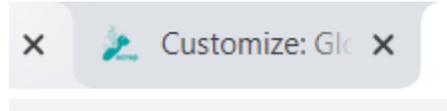
- **HTML:** The HTML section can be edited within the text editor box on the left side of the screen, shown below:
- **Socials:** In the social media buttons settings you can add and remove social media links, change the alignment and margin of the links, and change the icon size, spacing, and colour.
- **Footer menu:** In primary menu settings, you can change menu margin and spacing, width, text and background colour, and font size. To change the content of the footer menu see 63

Performance

Allows you to preload Google fonts locally. This has no effect on the website.

Site Identity

Site identity settings allow you to change the tiny image on the left side of the tab in any browser, shown below:



Menu

In menu settings, you can choose which menus are displayed where in the website, as well as customising and creating new menus. Astra has 5 menu locations: primary menu, secondary, off-canvas menu, logged in account menu, footer menu.

Menu	Location
Primary	In the header. This is the toolbar.
Secondary	Another menu in the header. Not currently in use.
Off-Canvas	Used for tablets and mobile devices.
Logged In Account Menu	Used for websites where users log in. This does not apply to the Global Weapons Tracking Portal.
Footer Menu	In the footer.

While you are able to edit menus from this menu it is easier to edit menus 63

Widgets

This page does nothing. You can edit widgets in either the header or footer builder or page 69

Homepage Settings

In homepage settings you can choose which page is displayed as the homepage or change the homepage to be a posts page where posts are displayed in chronological order. For the Global Weapons Tracking Portal, the homepage should always be set to a static page.

Additional CSS

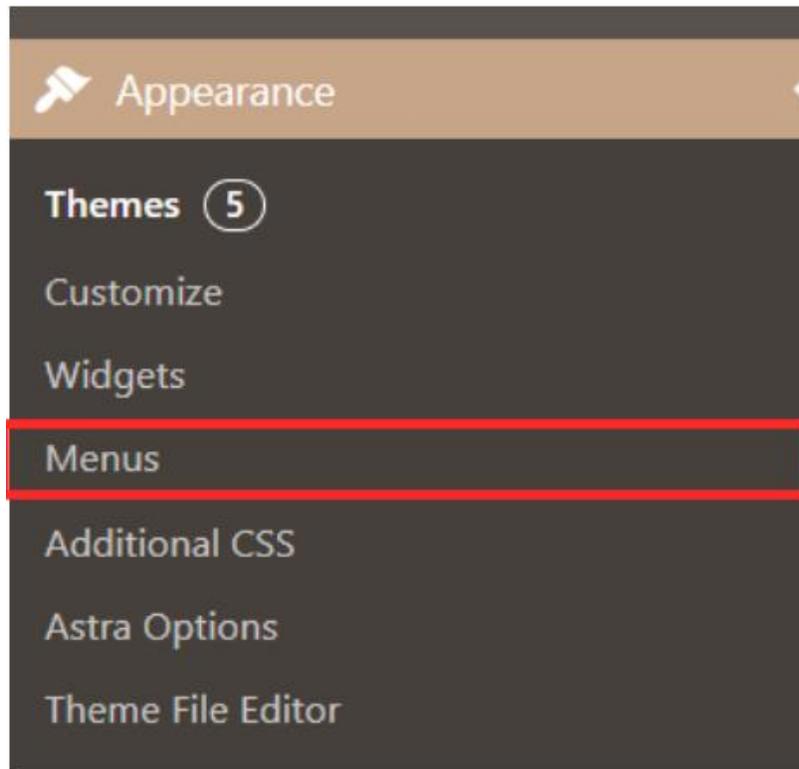
You can add additional CSS to the website. CSS is a coding language used to style elements on websites, but it is not necessary for the purpose of this website. If you would like to learn more about additional CSS, see page 113

Menus

Menus improve website navigation by providing users links to important pages. We created a toolbar for the website to streamline navigation.

To access all information relating to menus

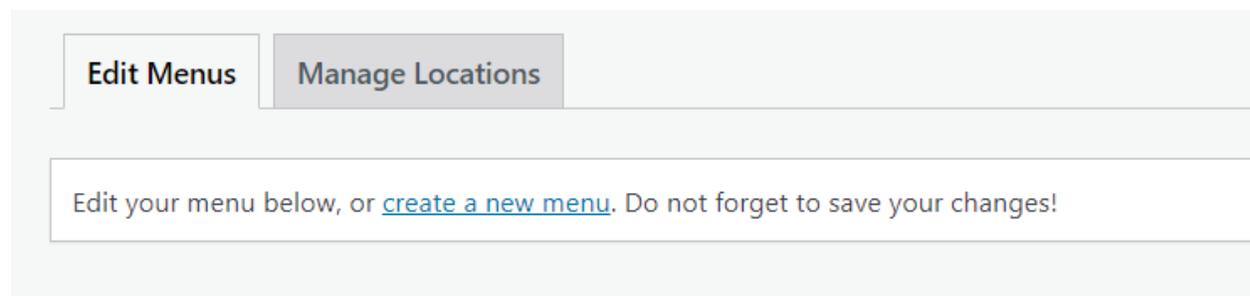
1. Navigate to your Wordpress dashboard.
2. Scroll down and click “Appearance.”
3. Select “Menus” from the Appearance menu, as shown below:



This will bring up the menu editor.

To create a new menu

1. Click the “create a new menu” link at the top of the menu editor, seen below:



This will bring up an empty menu.

2. Enter a name in the “Menu Name” box below “Menu Structure.”

NOTE: You will not be able to add menu items until you have named the menu.

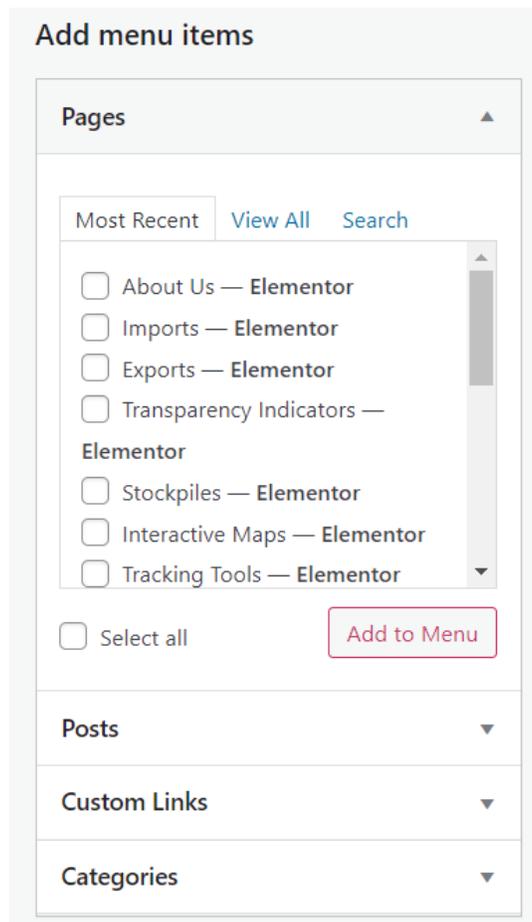
3. Add your desired menu items. If you do not know how to add menu items, refer to page 64
4. Edit the menu structure to your liking. If you do not know how to edit the menu structure, refer to page 67
5. When finished, click the “Save Menu” button at the bottom of the menu editor.

The menu editor will automatically show the settings for the main menu, allowing you to edit the menu’s content and structure.

The sidebar allows you to add content to the menu.

To add pages

1. Click on “Pages” in the sidebar, shown below:

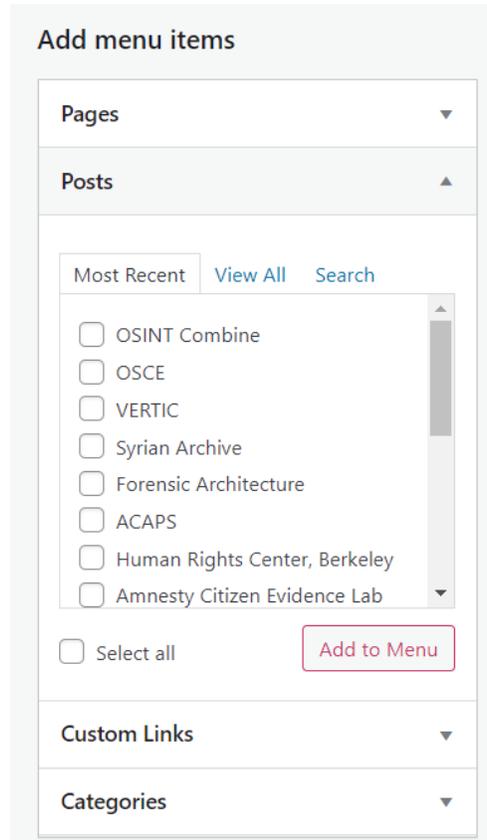


2. Select all pages you would like to feature in the menu.

3. Click the “Add to Menu” button. The selected pages will appear at the bottom of the menu structure box as primary items.

To add posts

1. Click on “Posts” in the sidebar, shown below:



2. Select all posts you would like to feature in the menu.
3. Click the “Add to Menu” button. The selected posts will appear at the bottom of the menu structure box as primary items.

To add custom links

1. Click on “Custom Links” in the sidebar, shown below:

Add menu items

Pages ▼

Posts ▼

Custom Links ▲

URL

Link Text

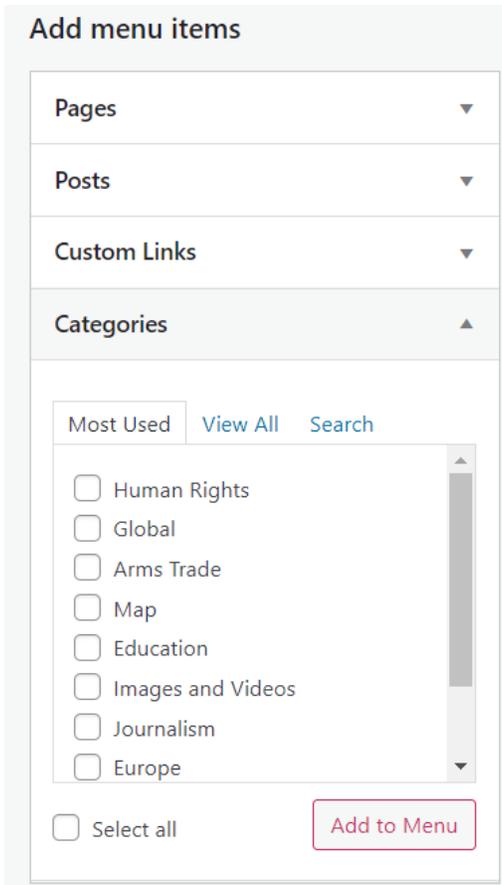
[Add to Menu](#)

Categories ▼

2. Enter the URL for the item you would like to add in the “URL” box.
3. Enter a name for the item in the “Link Text” box.
4. Click the “Add to Menu” button. The new link will appear at the bottom of the menu structure box as a primary item.

To add categories

1. Click on “Categories” in the sidebar, shown below:



2. Select all categories you would like to feature in the menu.
3. Click the “Add to Menu” button. The selected categories will appear at the bottom of the menu structure box as primary items.

The menu structure is organised by primary items and sub-items. Primary items always appear within the menu, while sub-items are delegated to a drop-down when you click on the primary item. You can drag each item to rearrange its placement within the menu. Items higher in the menu will appear first in the menu. By dragging an item further to the right OR by dragging an item on top of a primary item, the item will become a sub-item. An example of the item structure editor is shown below:

Menu structure

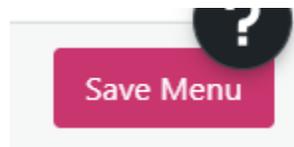
Menu Name

Drag the items into the order you prefer. Click the arrow on the right of the item to reveal additional configuration options.

Bulk select

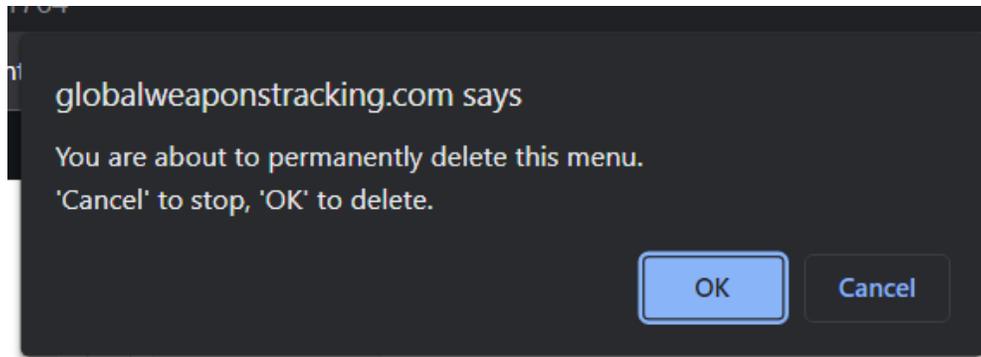
About Us	Custom Link ▼
Open Source Verification	Custom Link ▼
Tracking Tools	Custom Link ▼
Interactive Maps	Custom Link ▼
Conventional Weapons Imports <i>sub item</i>	Custom Link ▼
Conventional Weapons Exports <i>sub item</i>	Custom Link ▼
Transparency Indicators <i>sub item</i>	Custom Link ▼

When you are done editing the menu, click the “Save Menu” button at the bottom of the menu editor, shown below:



To delete a menu

1. Click on the “Delete Menu” button at the bottom of the menu editor. The following pop-up will appear:



WARNING: Once you delete a menu, you will not be able to restore it. All content and structure for the menu will be gone permanently.

2. Click “OK.” The menu will be permanently deleted.

You can also manage where the menu will appear.

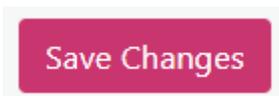
To manage menu locations

1. Click the “Manage Locations” tab at the top of the menu page. This will show you a table of menu locations and the assigned menus, shown below:

Your theme supports 5 menus. Select which menu appears in each location.

Theme Location	Assigned Menu
Primary Menu	Main Menu <input type="button" value="v"/> Edit Use new menu
Secondary Menu	— Select a Menu — <input type="button" value="v"/> Use new menu
Off-Canvas Menu	Main Menu <input type="button" value="v"/> Edit Use new menu
Logged In Account Menu	— Select a Menu — <input type="button" value="v"/> Use new menu
Footer Menu	Main Menu <input type="button" value="v"/> Edit Use new menu

2. Click the drop-down next to the location you would like to change.
3. Select the name of the menu you would like to set. If you do not want any menu in that location, click “Select a Menu.”
4. When done making changes, click the “Save Changes” button below the table, shown below:

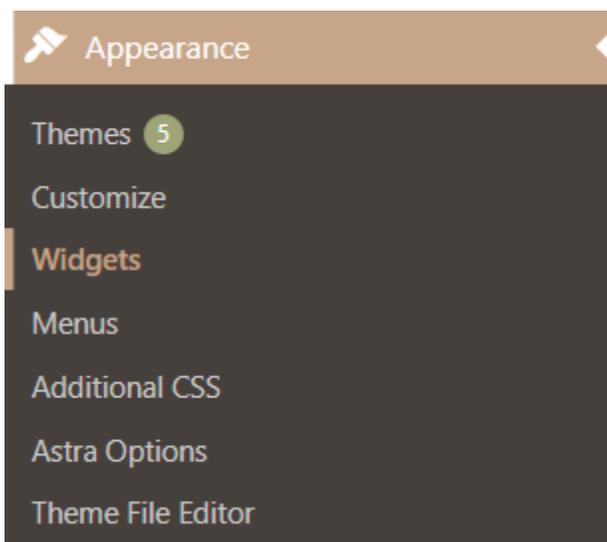


Sidebar

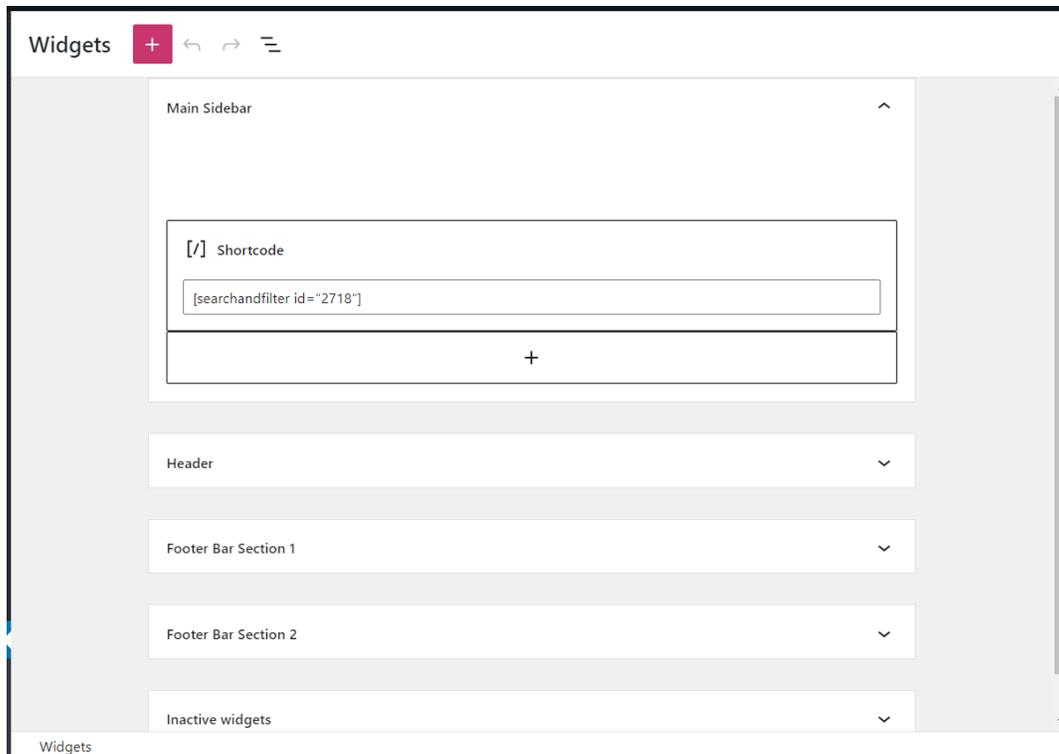
The sidebar is a section of the website where widgets and blocks can be placed. The widgets and blocks in the sidebar stay constant throughout every page that the sidebar is active for, which allows for easy and fast customisation of a website. We used the sidebar to create the filter system (**SEE PLUGIN PAGE HAYLEY YOU KNOW THE DRILL BING BONG DING DONG YOU KNWO**). As a result, the sidebar is turned off for all pages except for Open Source Verification.

To access the sidebar and widgets

1. Navigate to your Wordpress dashboard.
2. Click “Appearance” in the sidebar.



3. Click “Widgets.” This will open the widgets page, shown below:

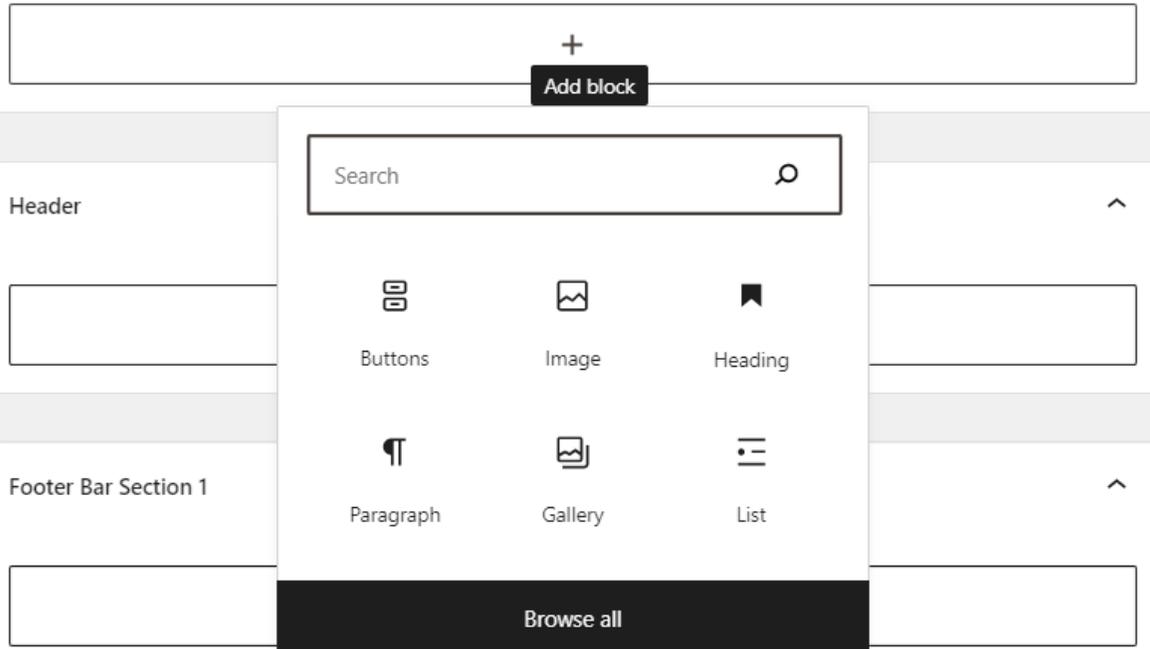


In the middle of the screen will be widget sections for Main Sidebar, Header, Footer Bar Section 1, Footer Bar Section 2, and Inactive Widgets. Each of these sections can be filled with blocks (text, images, shortcode, headings, etc.) and then enabled or disabled on each of their respective places on the website. The header and two footer widgets can be enabled or disabled through the Header Builder (page 59) or the Footer Builder (page 61) respectively. The main sidebar can be enabled or disabled for the whole website in sidebar settings (see page 69) as well as enabled or disabled individually in page and post settings (see page 20 for page settings, and page 32 for post settings).

We have disabled the sidebar site-wide except for the Open Source Verification page. We have two blocks currently added to the sidebar widget, one being a header, and the other being a shortcode block that holds the search form for the filter system (see page 84)

To add blocks to a widget

1. Click the plus button. This will pull up a menu of block options, shown below:



2. Search or click “browse all” to find the block you would like to use.
3. Drag the desired block over to the widget section. The block will appear within the widget.

You are able to edit each block with either the settings above the block or the block editor on the right of the screen. Most settings should be intuitive to change, however if you need any help, Wordpress support <https://wordpress.com/support/> has in depth documentation for the settings of the 87 blocks currently available to use.

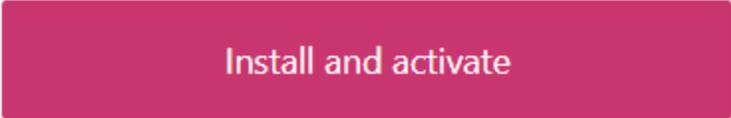
Plugins

A plugin is an extension that can be added to the wordpress website. Plugins usually consist of additional functionality that is built seamlessly into the Wordpress dashboard or Elementor editor. Plugins can be free or paid for, and some of the plugins have automatically been installed by the hosting service.

While the standard Wordpress experience is easy to use, the tools can sometimes be limiting. Moreover, writing the code necessary to add new functionality to the website requires time and experience. By installing plugins, you can add functionality to your website without any hassle.

To install a plugin

1. Navigate to your Wordpress dashboard.
2. Click on “Plugins” in the sidebar. This will pull up the plugins page.
3. Scroll through or use the search bar to find the desired plugin.
4. Click on the desired plugin. This will bring up the information on the plugin.
5. Click the “Install and activate button,” shown below:



Install and activate

A progress bar will appear as the plugin is being installed. When complete, the following message will appear:



All ready to go!

UpdraftPlus - Backup/Restore has been installed.

What's next?

Plugin setup

Get to know your plugin and customize it, so you can hit the ground running.

[Manage plugin](#)

Keep growing

Take your site to the next level. We have all the solutions to help you grow and thrive.

[Explore plugins](#)

You may find that you are not using certain plugins. Those plugins can be deactivated to decrease clutter.

To deactivate a plugin

1. Navigate to your Wordpress dashboard.
2. Click on “Plugins” in the sidebar. This will pull up the plugins page.
3. Click the “Installed Plugins” button in the top right corner, shown below:

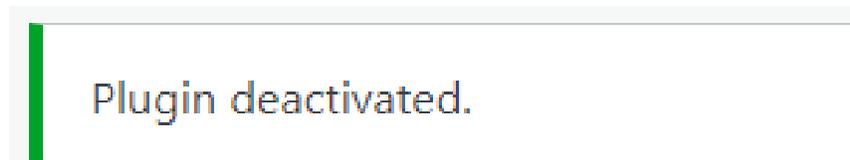
[Installed Plugins](#)

This will bring up the list of installed plugins.

4. Scroll through or use the search bar to find the desired plugin.
5. Click “Deactivate” under the plugin name, shown below:



When clicked, the page will reload and the following message will appear:



The GWTP website currently uses a variety of plugins. The plugins used on the GWTP website include:

- Akismet Anti-Spam
- All in One SEO
- AMP
- Classic Editor
- Custom Layouts - Post + Product grids made easy
- Elementor
- Jetpack
- Page Optimise
- Search & Filter Pro
- WP Coder

This section will explore each plugin and outline the purpose, settings, and features of the plugins.

Akismet Anti-Spam

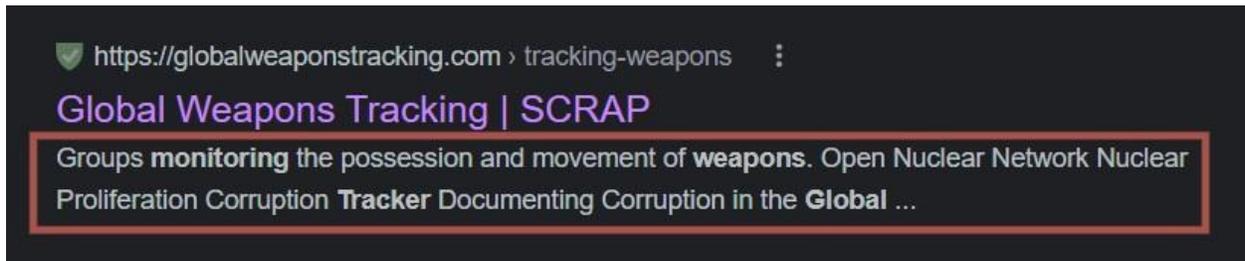
Akismet Anti-Spam is a plugin that blocks spam from the site. It was installed and managed by the host of the website (Automattic). This plugin works autonomously, so you will not need to alter it. All updates are managed by the website host, so you will not need to update the plugin.

All in One SEO

All in One SEO (AIOSEO) allows you to update meta keyphrases as well as the description that appears on search results.

Meta Keyphrases

Meta keyphrases help with the visibility of the website on search engines, and will allow the website to appear higher on search results.



To update meta keyphrases and descriptions

1. Log into your Wordpress dashboard.
2. Click on “All in One SEO” in the sidebar, shown below:



3. Click “Dashboard.” This will pull up the All in One SEO dashboard.
4. The AIOSEO Overview section shows the number of pages or posts tagged as “Needs Improvement,” “Okay,” “Good,” and “Without a Focus Keyphrase.” The Overview section is shown below:



5. Switch between posts and pages by selecting the desired item from the “Choose a post type” dropdown menu.
6. Click on “Needs Improvement”. This will show a list of pages/posts that need editing along with their respective AIOSEO scores, shown below:

<input type="checkbox"/>	Title	Author	Stats		★	Date	AIOSEO Details
<input type="checkbox"/>	OSCE — Elementor Edit Quick Edit Copy Trash View Edit with Elementor	hayleywigen		—		Published 2022/06/12 at 12:09 pm	60/100 <p> Title: OSCE - Global Weapons Tracking Portal</p> <p> Description: OSCE OSCE helps you learn how to collect, verify, and analyze data from open source technologies to help monitor</p>

7. Click edit on the page/post that needs improvement.

Search Result Snippet

The search result snippet shows how the GWTP website appears on search results. It consists of the Page title and the meta description. Both of these can be edited to improve AIOSEO scores.

Page Title

Page title can be created by writing your own title, or by using tags to create the page title (recommended).

To use tags

1. Click on the recommended tags above the text editor. They will populate as soon as you click on them.
2. If you would like to use different tags, you can either click “view all tags” or use the dropdown menu from a pre-existing tag to change it.

Post Title

Click on the tags below to insert variables into your title.

[+ Post Title](#) [+ Separator](#) [+ Site Title](#) [View all tags →](#)

Post Title ▾ **Separator** ▾ **Site Title** ▾

37 out of 60 max recommended characters.

Meta Description

The meta description appears underneath the page title on the search result snippet. The meta description can be created by writing your own description (recommended), or using the tags. We recommend that you write your own description so that it is concise and relevant to a search snippet.

To use tags

1. Click on the recommended tags above the text editor. They will populate as soon as you click on them.
2. If you would like to use different tags, you can either click “view all tags” or use the dropdown menu from a pre-existing tag to change it.

Meta Description

Click on the tags below to insert variables into your meta description.

[+ Post Excerpt](#) [+ Post Content](#) [+ Separator](#) [View all tags →](#)

Post Excerpt ▾

270 out of 160 max recommended characters.

Focus Keyphrases

Focus keyphrases increase the likelihood of the website appearing within search results. Focus keyphrase score is affected by several factors which can be found underneath the keyphrase box.

To update keyphrases

1. Hover over the keyphrase box and click the pencil.
2. Type in a keyphrase you would like to try. The score will update to show the efficacy of the keyphrase. Try to find a keyphrase that scores higher than the current keyphrase.

Focus Keyphrase ? **OSCE** **80/100**

- ✔ Focus keyphrase in SEO title >
- ✔ Focus keyphrase in meta description >
- ✔ Focus keyphrase length >
- ✔ Focus keyphrase in URL >
- ✘ Focus keyphrase in introduction ^
Your Focus keyphrase does not appear in the first paragraph. Make sure the topic is clear immediately.
- ✔ Focus keyphrase in Subheadings >
- ✘ Focus keyphrase in image alt attributes ^
Focus keyphrase not found in image alt attribute(s). Add an image with your Focus keyphrase as alt text.

[Get Additional Keyphrases](#)

3. When finished updating, click the “Update” button in the top right.

AMP

AMP is a plugin that speeds up the mobile version of the website. It was installed by a previous IQP team. This plugin works autonomously, so you will not need to alter it at all aside from occasional updates.

Classic Editor

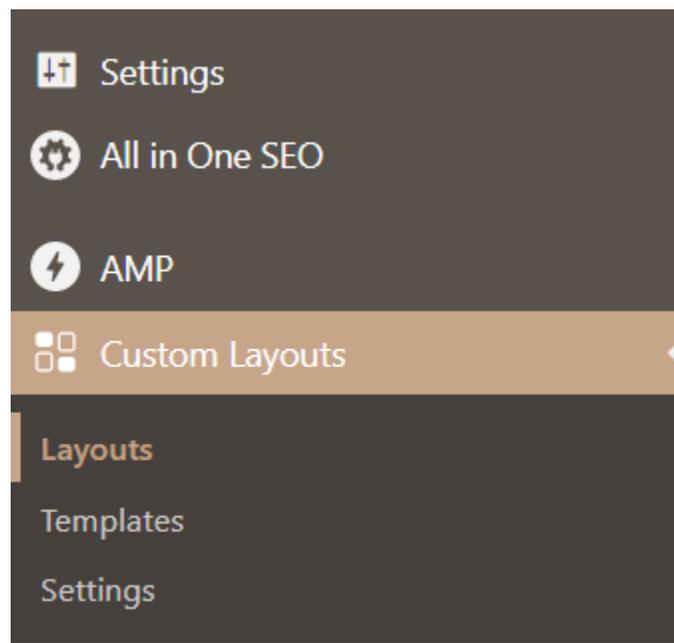
This plugin reinstates the classic Wordpress editor. It was installed by a previous IQP team, presumably to make editing easier. Our team kept it installed and therefore all of the procedures in this tech manual are based around it. This plugin works autonomously, so you will not need to alter it at all aside from occasional updates.

Custom Layouts

Custom Layouts is a very important plugin for the Open Source Verification page of the website. Custom Layouts allows us to create custom layouts for search results, specifically search results for the Search & Filter Pro plugin also used on the Open Source Verification page.

To access Custom Layouts

1. Navigate to your Wordpress dashboard.
2. Click on “Custom Layouts” in the sidebar, shown below:



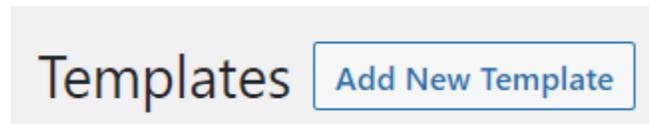
There are two important sections to this plugin: templates and layouts. This section will describe templates and layouts in further detail.

Templates

Templates are how each individual post is structured within the search result.

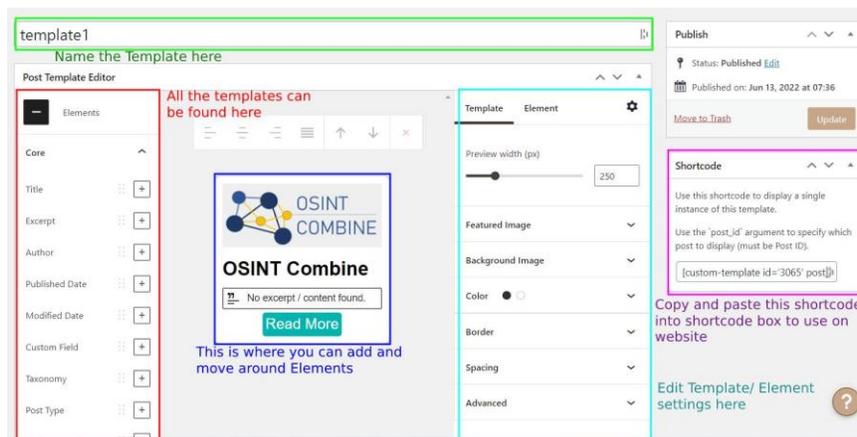
To create a template

1. Click “Templates” below “Custom Layouts” in the sidebar.
2. Click “Add New Template” at the top of the screen, shown below:



This will open the template editor.

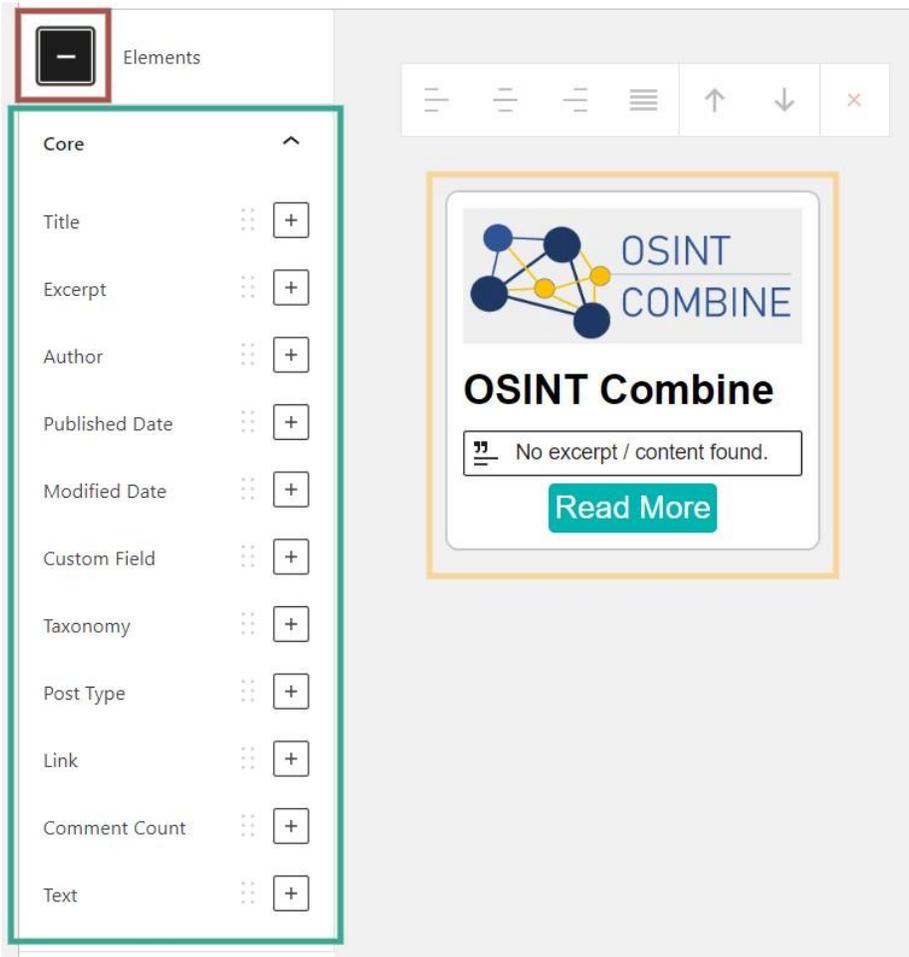
To edit a template



1. Name the template in the title box.

template

2. Add elements from the “core” elements box on the left to the preview template in the middle. You may have to press the plus button in the top left of the templates box to expand the elements menu.



3. Important elements for our purposes include Title, Excerpt, Featured Image, Taxonomy, and link. Each of these elements can be centred, moved up or down the template, or removed altogether by using the settings just above the template preview. Settings for the Template, as well as the elements can be found in the settings box to the right of the template preview.

- Title: Title populates with the Title of the page or post that it links to. In the cyan box, you are able to change common settings of the title such as typography, text colour, border and spacing
- Excerpt: The excerpt element populates with the excerpt of the post or page it is linking to. In excerpt settings, you can manually limit the amount of words the section displays, or you can populate the element with content from the post if no excerpt exists. Other settings such as typography, text colour, border and spacing can also be changed from this menu.

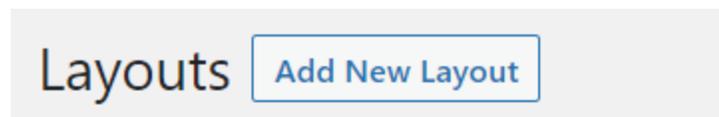
- **Featured Image:** The featured image element is very important for the visual design of the template. As such, its settings are split up between both the template settings section and the element settings section. In the template settings you can enable or disable the featured image, as well as move it up and down the template. In the element settings you are able to change the image size, make the image link to the post when clicked, change the foreground and background colours, and change the border and spacing of the image
 - **Taxonomy:** While we did not add the taxonomy element to our template, it may be something to consider adding. The taxonomy element allows you to display the categories of the posts on the templates themselves. To do this, add a taxonomy element, then in the element settings, select “categories” from the taxonomies drop down. Afterwards you’re able to change settings such as the order of the categories, the maximum limit of categories shown, and if you would like the categories to link to a page with all the other posts in the category. You are also able to add text before and after. There are taxonomy, colour, border, and spacing settings for both the intro/conclusion text as well as the categories themselves.
 - **Link:** The link element allows you to add a button that links off to the post. In the element settings you can change the button text, it’s typography, text and background colour, border, and spacing
4. Once you are done with your changes, click the update button in the top right. If you are updating a pre-existing template for a pre-existing layout, it will update automatically. Otherwise you should copy the shortcode from the shortcode box on the very right of the page and paste it into the corresponding shortcode widget on the page you are updating.

Layout

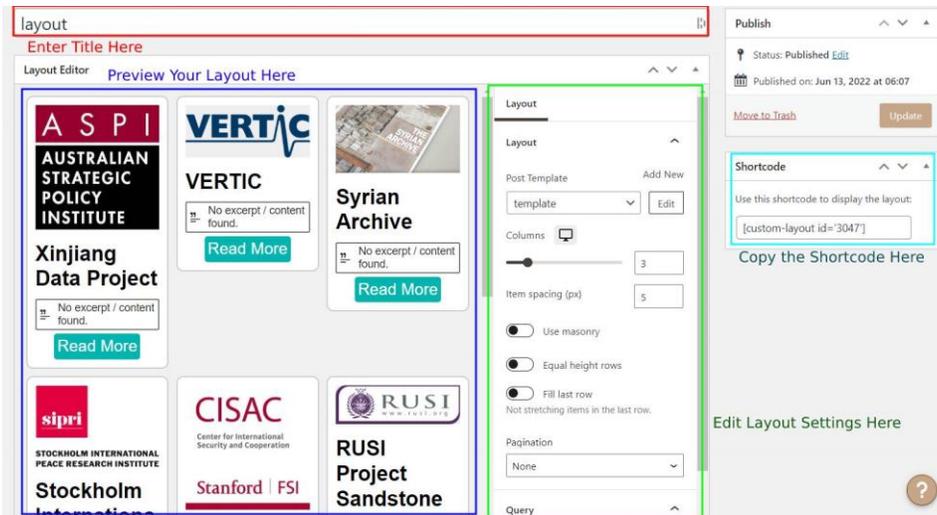
Layouts are how the whole search result is structured.

To create a new Layout

1. Click “Layouts” below “Custom Layouts” in the sidebar.
2. Click “Add New Layout” at the top of the page, shown below:



To edit a layout



1. Name the Layout in the title box.

Edit Layout [Add New Layout](#)

layout

2. Settings for the Layout are split into two categories: Layout and Query. Layout settings deal with the visual design of the layout. Most importantly, you are able to choose a template to use with your layout. It can either be a custom layout which was defined earlier or the default template created by the plugin. Other settings that may be of importance are the amount of columns, the spacing between each item horizontally, and how it handles vertical space in between each post. Leave pagination set to “none” as setting it to numbers can mess with some of the *Search and Filter Pro* settings later in this section
3. Query settings allow us to connect our layout to *Search and Filter Pro* which is the plugin that allows us to filter and search posts based on categories. In the query settings, make sure “Use search and filter” is enabled. In “choose a query” select the *Search and Filter Pro* search form that you would like to connect this layout to. If you would like to create a new one, see the instructions on page 84. Finally, you can edit the text that is displayed in the layout when no results are found for a given search.
4. Once you’re done creating/ updating your layout, click “update” in the top right. If you are updating an existing layout, it will automatically update the layout across the website. If you have created a new layout, copy the shortcode from the shortcode box on the very right and be prepared to paste it on the page you would like to add the layout to.

Elementor

Elementor is the editing plugin we used to create all of the pages and posts for the website. The Elementor editor is easier to use than the default Wordpress editor and therefore we have

structured this tech manual around the use of Elementor. See page 4, for more information about how to use Elementor.

Jetpack

Jetpack is a plugin that was installed and managed by the server host, Automattic. Jetpack helps improve performance and security of the website, which includes managing the Akismet Anti-Spam plugin mentioned above. The most important functions of the Jetpack plugin is restoring backups noted on page 91 and keeping track of stats, which can be access through the Wordpress dashboard sidebar.

Page Optimise

Page Optimise optimises the HTML, Javascript, and CSS code that make up the pages on the website in an attempt to load the pages faster. You will not need to alter this plugin at all aside from occasional updates.

Search & Filter Pro

Search & Filter Pro is the plugin we used to create the filter system for the open source verification page. It is the only paid plugin on the website, and its costs are being covered by Reese Haly as his lasting contribution to the website as well as the weapons tracking community. There is a free version (Search & Filter) that can be installed and used, however it is much more limited tool. The biggest problem with the free version is that it does not allow for the results to be displayed on the same page. Instead, the results open on a new page that can't be styled by us. Therefore, since this is the main tool for the portal, we opted for the more seamless option. An example of the free versions design can be seen below.

Search ...

Categories

- Category 1
- Category 2
- Category 3
- Category 4
- Category 5
- Uncategorized

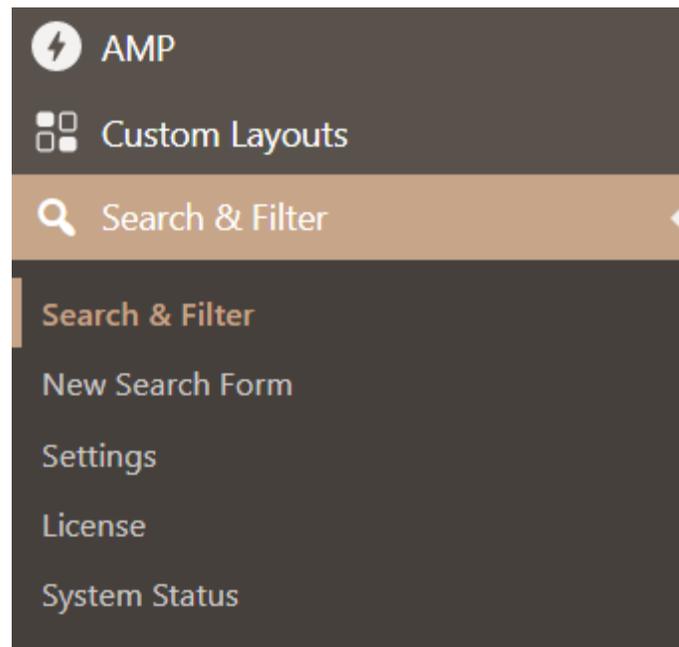
Tags

- tag
- tag1
- tag2
- tag3
- tag4

Submit

To access Search and Filter Pro

1. Log in to your Wordpress dashboard
2. Click on “Search & Filter” in the sidebar, shown below:

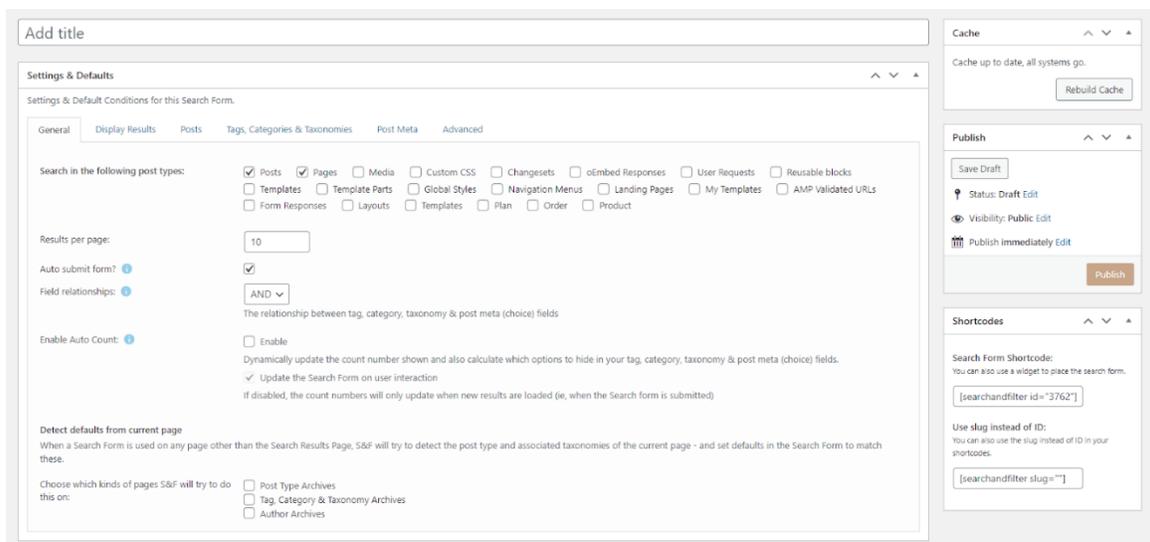


The Search & Filter Pro version is very well documented (<https://searchandfilter.com/documentation/>). We will give a fairly comprehensive overview of this plugin, however any other information can be found there. Search & Filter is used to create “search forms” which is a way to create custom filter systems. We use a search form on the left of the Open Source Verification page to customise the search, and a Custom Layout (see page 78) to display the search on the right.

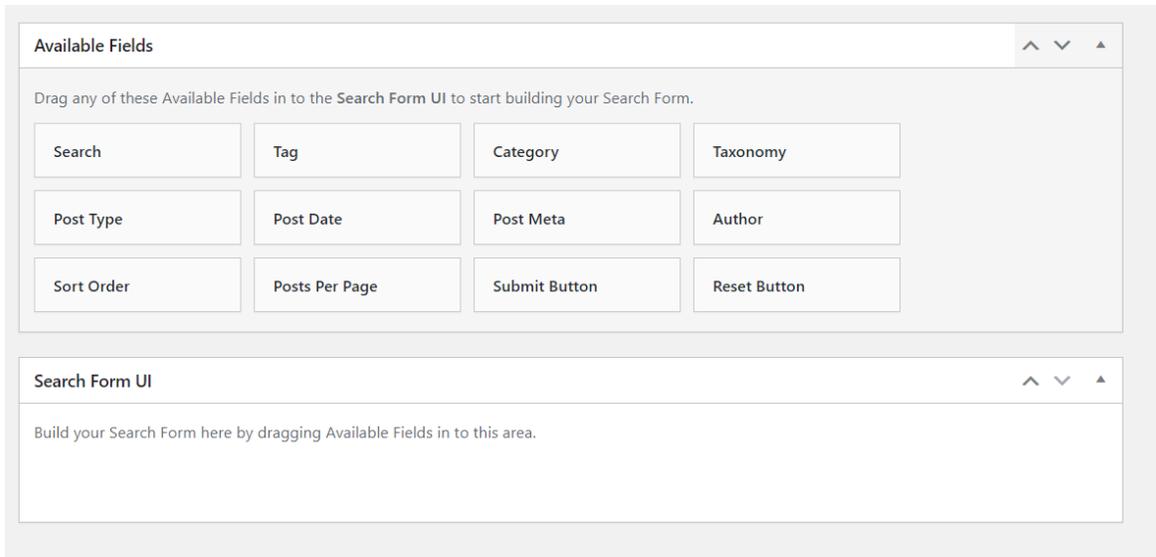
To create a search form

1. Log in to your Wordpress dashboard.
2. Click “Search & Filter” in the sidebar.
3. Click “New Search Form” under “Search & Filter” in the sidebar.

Once inside the search form editor, you will notice that the editor is split up into two different sections: general settings and a block editor for the form.



Section 1: General Settings



Section 2: Block Editor

We will start with the block editor, since you will want to create the search form prior to altering settings. The block editor is split in two sections: “Available Fields” and “Search Form UI”.

How to use the block editor for search forms

- Drag desired fields from the “Available Fields” into “Search Form UI”.

NOTE: Fields currently used by the Open Source Verification search form are Search, Category, and Submit Button. However you may use other fields at your discretion.

Fields can be dragged up and down the Search Form UI to change their position relative to one another.

After adding a field to the Search form UI, each field will have its own settings.

To access field-specific settings

- Click on the desired field in the “Search Form UI” section, shown below. This will open a settings dropdown.

Build your Search Form here by dragging Available Fields in to this area.

Search	▲
Category	▼
Submit Button	▼

Search Settings

Search settings allow you to add header text, placeholder text that displays in the search box when it is empty, and screen reader text. Screen reader text will not display on the website, instead it will be read out to those using screen readers.

Category		▲
Input type:	<input type="checkbox"/> Display count? ⓘ	Advanced settings
<input type="checkbox"/> Hide empty terms? ⓘ		
<input type="checkbox"/> Hierarchical? ⓘ		
<input type="checkbox"/> Include Children in Parents? ⓘ		
Delete Close		

Category Settings

- Category settings are crucial to the layout of the search form. Input type allows you to choose how categories are selected, whether via dropdown, radio buttons, checkboxes, or multiselect. We chose checkboxes as it allows users to select multiple categories at a time to filter from.
- “Add a heading” allows you to add header text above the categories
- “Search Operator” settings are only available for checkboxes and multi-select. It determines if a post needs to fulfil ALL requirements to be returned (AND) in the search or if it can fulfil ANY of the requirements to be returned (OR). The search form is currently set to OR.
- “Display count” will show a number next to the category in the search form showing how many posts match that category.

- “Hide empty terms” removes categories with 0 posts in them from the list. There should not be any categories with 0 posts in them, so this can be ignored.
- “Hierarchical” and “Include Children in Parents” both deal with child categories, which the GWTP does not use. These can be ignored.

Submit Button ▲

Add a heading?

Submit label i

[Delete](#) | [Close](#)

Submit Button Settings

- Add a heading allows you to add header text above the submit button.
- Submit button label allows you to customise what text is on the submit button.

General Settings

General settings affect the overall usage of the search form and the results form. General settings are broken up into 6 different sections:

- General
- Display settings
- Posts
- Tags, Categories, and Taxonomies
- Post Meta
- Advanced

Tags, Categories, and Taxonomies; Post Meta; and Advanced settings can all be ignored.

General | Display Results | Posts | Tags, Categories & Taxonomies | Post Meta | Advanced

Search in the following post types:

Posts Pages Media Custom CSS Changesets oEmbed Responses

User Requests Reusable blocks Templates Template Parts Global Styles

Navigation Menus Landing Pages My Templates AMP Validated URLs Form Responses

Layouts Templates Plan Order Product

Results per page:

Auto submit form?

Field relationships:

The relationship between tag, category, taxonomy & post meta (choice) fields

Enable Auto Count: Enable

Dynamically update the count number shown and also calculate which options to hide in your tag, category, taxonomy & post meta (choice) fields.

Update the Search Form on user interaction

If disabled, the count numbers will only update when new results are loaded (ie, when the Search form is submitted)

Detect defaults from current page

When a Search Form is used on any page other than the Search Results Page, S&F will try to detect the post type and associated taxonomies of the current page - and set defaults in the Search Form to match these.

Choose which kinds of pages S&F will try to do this on:

Post Type Archives

Tag, Category & Taxonomy Archives

Author Archives

General Settings

- “Search in the following post types” chooses which type of content to add to search results. All organisations under Open Source Verification are posts, so posts should be the only option selected.
- “Results per page” decides how many results to display at once. This should be a multiple of the amount of columns in your Custom Layout (see page 78).
- “Auto submit form” updates the form as soon as the filter options are changed. Turning on auto submit makes the submit button unnecessary to click.
- “Field relationship” determines if a post has to match criteria from ALL the fields (AND), or if it can be from ANY field (OR).
- “Enable auto-count” dynamically changes the amount of posts in a category as different query options are selected.
- “Detect defaults from current page” is unnecessary, as the search form should always be on the same page as the search result

Display Settings

- “Display results method” determines how the results of the query are displayed. If you are using a custom layout (see 78), select “Custom Layout” from the drop down. Otherwise select “Using a shortcode.” Both of these will allow you to display the search results in the same page as the search form.
- “Results URL” determines the page URL you would like the results to be displayed on. It should be the same URL as the page the search form is being displayed on.

- “Ajax settings” affect the program that does all the computational searching, called Ajax. Its settings do not need to be changed.
- “Ajax Pagination” determines how many pages are used for results. There are two modes: Normal and Infinite Scroll. Normal will load the amount of posts specified in “Results per page,” mentioned above in General Settings. There will also be a “next page” button to load in the next set of posts. Infinite scroll loads in the next set of posts when you reach the bottom of the previous set of posts. Either is fine, however infinite scroll is usually cleaner.

Posts

- “Post status” chooses which types of posts are able to be added to the search results. We would only like published posts to be searched, so published is the only checkbox that should be selected.
- “Exclude Post IDs” allows you to exclude certain posts from the search results.
- “Sticky Posts” places a specific post at the top of the search results. This setting should be set to default.
- “Default order” decides what order the search results should appear in. It is set to chronological by default, but we set it to alphabetical.

To remove a field from the Search Form UI

1. Click on the desired field in the “Search Form UI” section. This will open a settings dropdown.
2. Click the delete button within the field settings, shown below:

The screenshot shows a settings dropdown for a search form. At the top, it says "Search" with a downward arrow. Below this are four settings:

- "Add a heading?" with an empty text input field.
- "Placeholder text" with a text input field containing "Search ...".
- "Add screen reader text?" with an empty text input field.
- At the bottom, there are two buttons: "Delete" (highlighted with a red box) and "Close".

Once you finish editing your search form, click the “Update” button on the top right.

If you are editing a pre-existing search form on a pre-existing page, the search form will automatically be updated. Otherwise, copy the shortcode from the shortcode box on the right and paste it into the shortcode block on the page you are trying to add it to.

NOTE: For the current version of the Open Source Verification page, we have the search form stored in the sidebar, which can be edited on page: 69

WP Coder

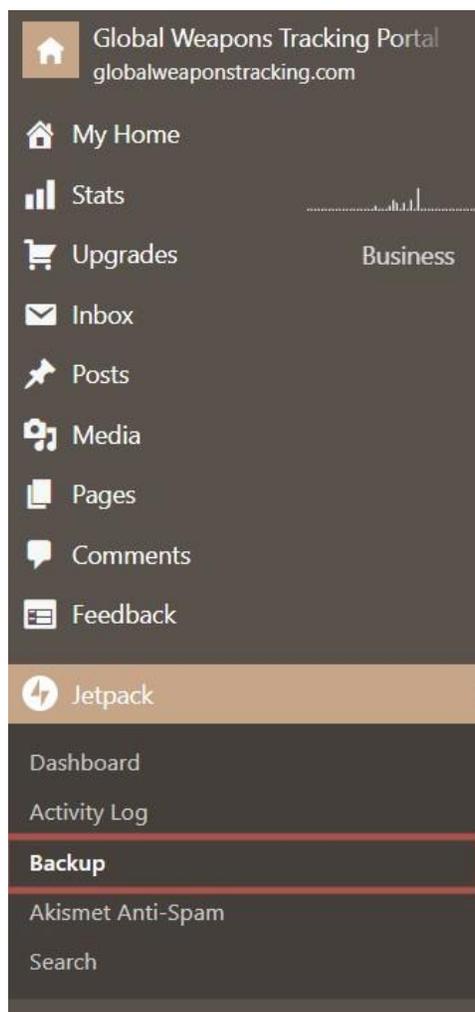
WP Coder is a plugin that allows for HTML code to be stored in the backend of the website and returns a shortcode that can be placed within a shortcode block to display the HTML. Specifically, this was used to move all of the map HTML to mitigate slow loading times caused by the lengthy code. From there, the HTML can easily be loaded into shortcode blocks and displayed on their respective pages. See Maps for how to update the map code with WP Coder (page 110).

Backups and Restoration

Backups are a saved version of your website that you can use in the event that any part of the website breaks. Backups are made automatically by the Jetpack plugin any time a change is made to the website. Because of this, you are able to restore the website back to its original state prior to breaking.

To restore the website from a backup

1. Navigate to the Wordpress Dashboard.
2. Navigate to “Backup” under “Jetpack” in the left menu bar.



3. If you would like to restore the most recent backup, click the “Restore to this point” button, shown below, then go to Step 7.

 Latest backup

Today, 12:14 PM

Download backup

Restore to this point

4. If you would like to restore back to an older backup, scroll down through the change history and find the last change you would like to restore to.
5. Click “Actions +” on the right, shown below:

 11:38 AM



hayleywigren administrator

Switched **Blank Canvas** to **Astra**

Theme activated

Restore to this point

 Download backup

Actions 

6. Click “Restore to this point” to begin the restoration.
7. Use the check boxes to choose which parts of the website you would like to restore, shown below:



Restore site

June 20, 2022 2:10 PM is the selected point for your restore.

Choose the items you wish to restore:

- WordPress themes
- WordPress plugins
- WordPress root (includes wp-config.php and any non WordPress files)
- WP-content directory (excludes themes, plugins, and uploads)
- Site database (includes pages, and posts)
- Media uploads (you must also select *Site database* for restored media uploads to appear)

 Restoring will override and remove all content after this point.

Confirm restore

8. Click “Confirm restore.” The following progress bar will appear:



Currently restoring your site

Initializing the restore process 0% complete

We are restoring your site back to **June 20, 2022 2:36 PM**.

 **Check your email**

Don't want to wait? For your convenience, we'll email you when your site has been fully restored.

When the restoration is complete, the following message will appear and an email will be sent to all website admins:



Your site has been successfully restored.

All of your selected items are now restored back to June 20, 2022 2:36 PM.

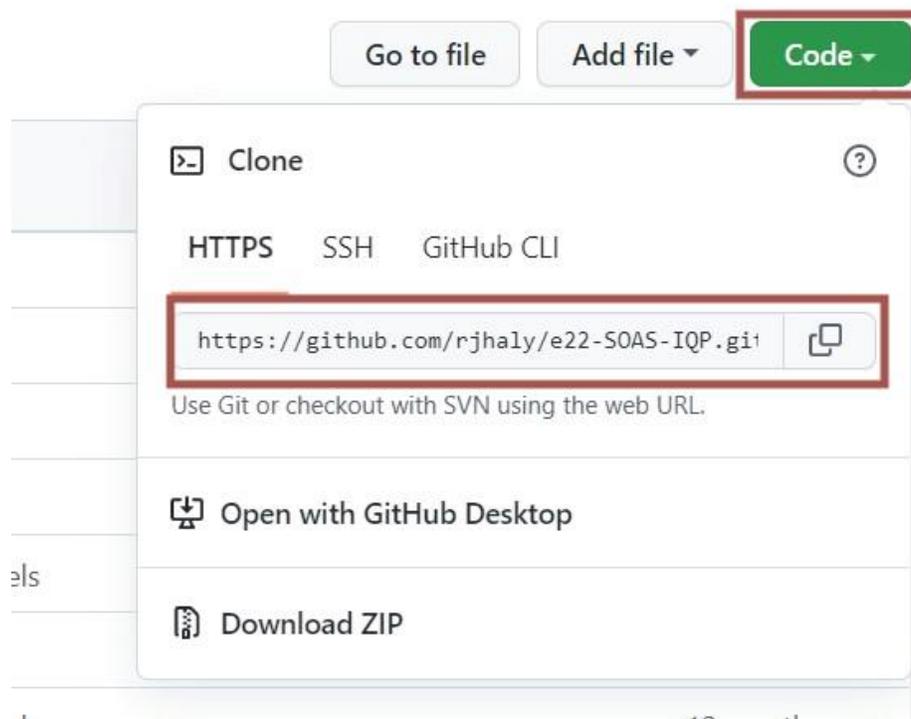
[View your website](#)

GitHub

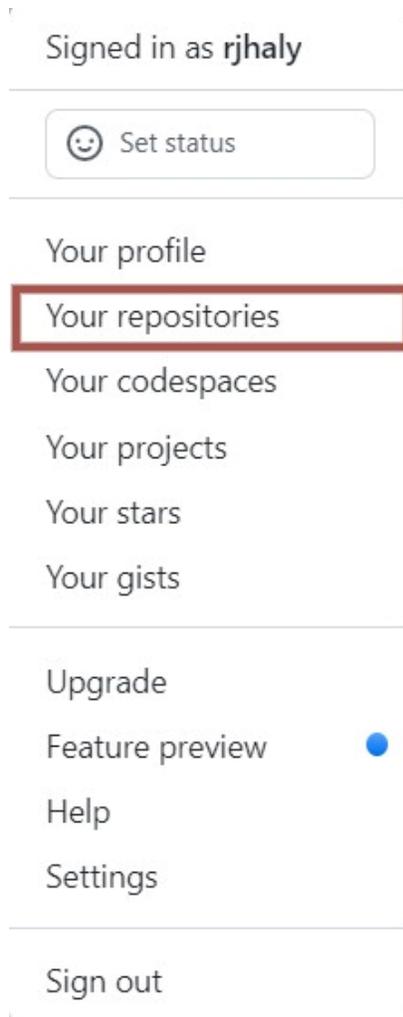
In order to complete all map procedures, the map code needs to be in the SCRAP Weapons GitHub. If the code is not currently within the SCRAP Weapons GitHub, the following procedure will detail the process.

To import the code

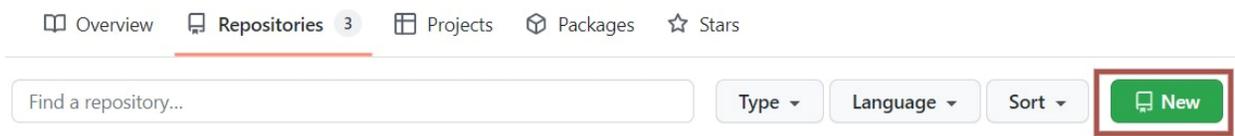
1. Navigate to the following directory: <https://github.com/rjhaly/e22-SOAS-IQP>
2. Click the green "Code" button in the top-right, shown below. This will open a drop down menu.



3. Copy the https link by clicking the icon on the right of the link.
4. Click on your profile image in the top right. If you are not signed in, you will need to sign in to complete this step. A drop-down menu should appear, shown below:



5. Click "Your repositories."
6. Click the green "New" button in the top right, shown below. This should take you to the "Create a new repository" page.



7. Click "Import a repository" at the top of the screen, shown below:

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere?

[Import a repository.](#)

Owner * Repository name *

 rjhaly ▾ /

- In the "Your old repository's clone URL" box, paste the link copied in Step 3.

Your old repository's clone URL

Learn more about the types of [supported VCS](#).

- In the "Repository Name" box, name your repository "GWTP-Maps."

Your new repository details

Owner * Repository Name *

 rjhaly ▾ /

Privacy

 **Public**
Anyone on the internet can see this repository. You choose who can commit.

 **Private**
You choose who can see and commit to this repository.

Your new repository will be created as -insert-repository-name-here-

NOTE: You can set the privacy of the repository to either public or private (seen in the above image, below "Repository Name"), depending on if you would like the code to be seen by the general public or not.

- Click the "Begin import" button at the bottom of the page, shown below. The code should successfully import into the SCRAP Weapons GitHub.

Cancel

Begin import

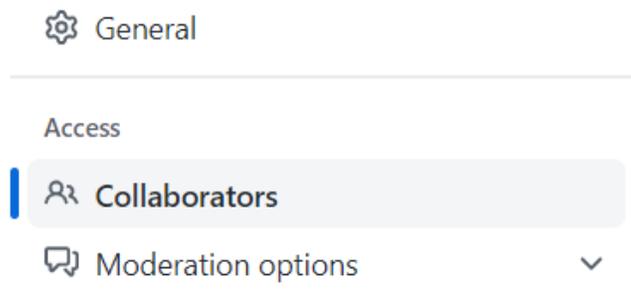
Collaborators are users who are allowed to edit the project. Even if your repository is private, collaborators will be able to see the code. Anyone responsible for updating the maps should be added as a collaborator.

To add a collaborator

1. Navigate to your code directory: <https://github.com/scrap-weapons/GWTP-Maps>
2. Click “Settings” in the top toolbar, shown below:



3. Click “Collaborators” under “Access” in the left menu, shown below:



4. Click the green “Add people” button on the right, shown below:

Manage access

Add people



5. Search using the username, full name, or email of the person you would like to add as a collaborator.
6. Click on their profile in the drop down.
7. Click the “Add (username) to this repository” button, shown below. The person will be added as a collaborator to your repository.



nrussey



Add nrussey to this repository

Maps

The GWTP website includes interactive maps created from SIPRI and UNROCA data. The maps are the most technically advanced portion of the website and require annual updates.

This section will contain all necessary information for updating and uploading the interactive maps. It will be organised into several subsections:

- Installing all necessary software
- Updating the UNROCA data
- Updating the maps
- Uploading the maps to the Wordpress website

Installing All Necessary Software

In order to run the program used to create the maps, you will need to download three software applications: *Python*, *PyCharm*, and *Git*. Python is the coding language used to write the map program. PyCharm is an integrated development environment (IDE), which is a piece of software that lets you write code in specified languages and run it from within the program. Git is a piece of software that allows you to easily send and receive code from GitHub.

If you have already installed Python, PyCharm, and Git, you may skip to 103.

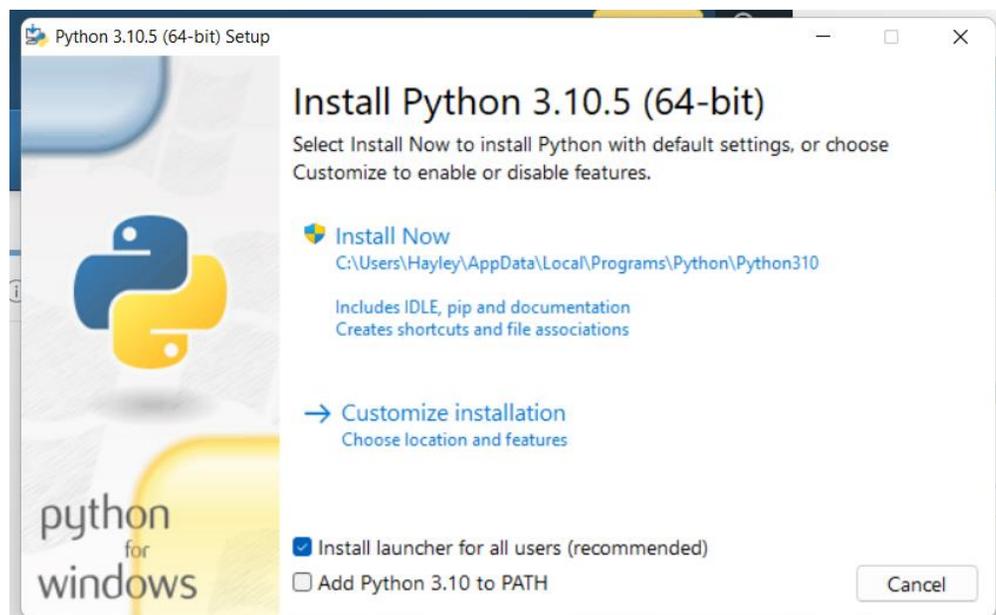
To Install Python

1. Navigate to python.org.
2. Hover over “Downloads”
3. Click on your operating system (Windows, MacOS, etc). This will show a list of different Python releases.
4. Click the link for the latest version of Python. This will download a “.exe” file.
5. Scroll to the bottom of the page to “Files,” shown below:

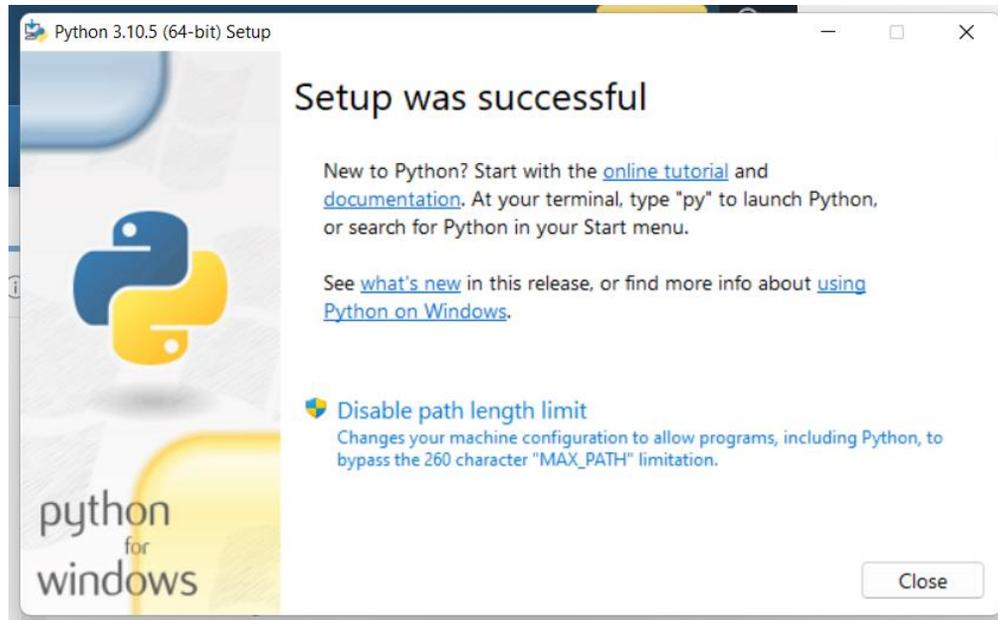
Files

Version	Operating System	Description	MDS Sum	File Size	GPG
Gzipped source tarball	Source release		d87193c077541e22f892ff1353fac76c	25628472	SIG
XZ compressed source tarball	Source release		f05727cb3489aa93cd57eb561c16747b	19361320	SIG
macOS 64-bit universal2 installer	macOS	for macOS 10.9 and later	cdc2e4c5a91477ae446689711c53aa72	40430804	SIG
Windows embeddable package (32-bit)	Windows		86be4156e8a5d5c9added8aab2bc83d1	7596969	SIG
Windows embeddable package (64-bit)	Windows		d97e3c0c7a19db2c5019f5534bcb0b19	8558134	SIG
Windows help file	Windows		43c924ac87daeed65acd85596eed1e33	9319556	SIG
Windows installer (32-bit)	Windows		eb59401a8da40051ec3b429897ae1203	27478768	SIG
Windows installer (64-bit)	Windows	Recommended	9a99ae597902b70b1273e88cc8d41abd	28637720	SIG

6. Select the recommended file for your operating system. This will download a “.exe” file.
7. Open the “.exe” file. This will open the Python Installer, shown below:



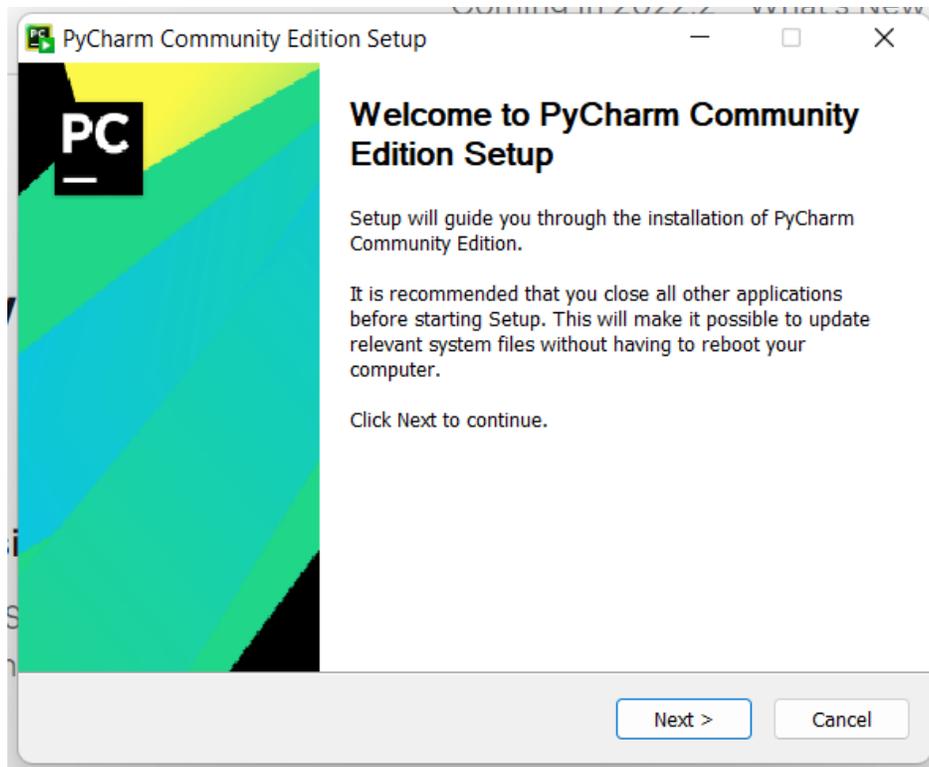
8. Click “Install Now.” The download will begin, and a progress bar will appear. When the download is complete, you will see the following message:



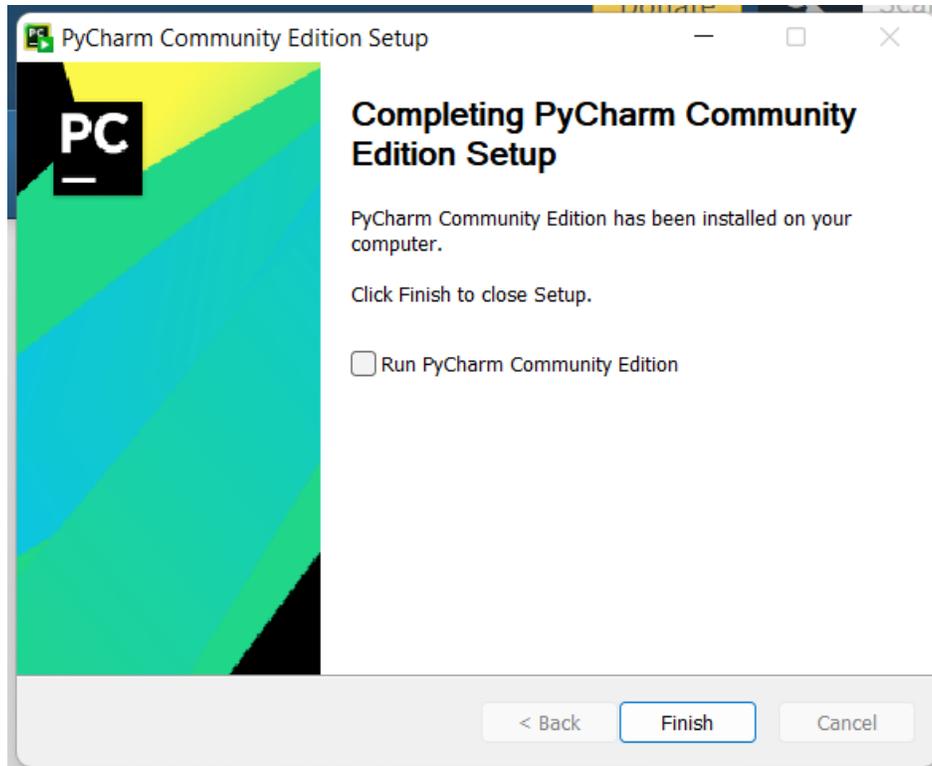
9. Click "Close."

To install PyCharm:

1. Navigate to <https://www.jetbrains.com/pycharm/>.
2. Click the "Download" button. This will take you to a page showing the two versions of PyCharm.
3. Click the "Download" button under the "Community" version. This will download a ".exe" file.
4. Open the ".exe" file. This will open the PyCharm installer shown below:



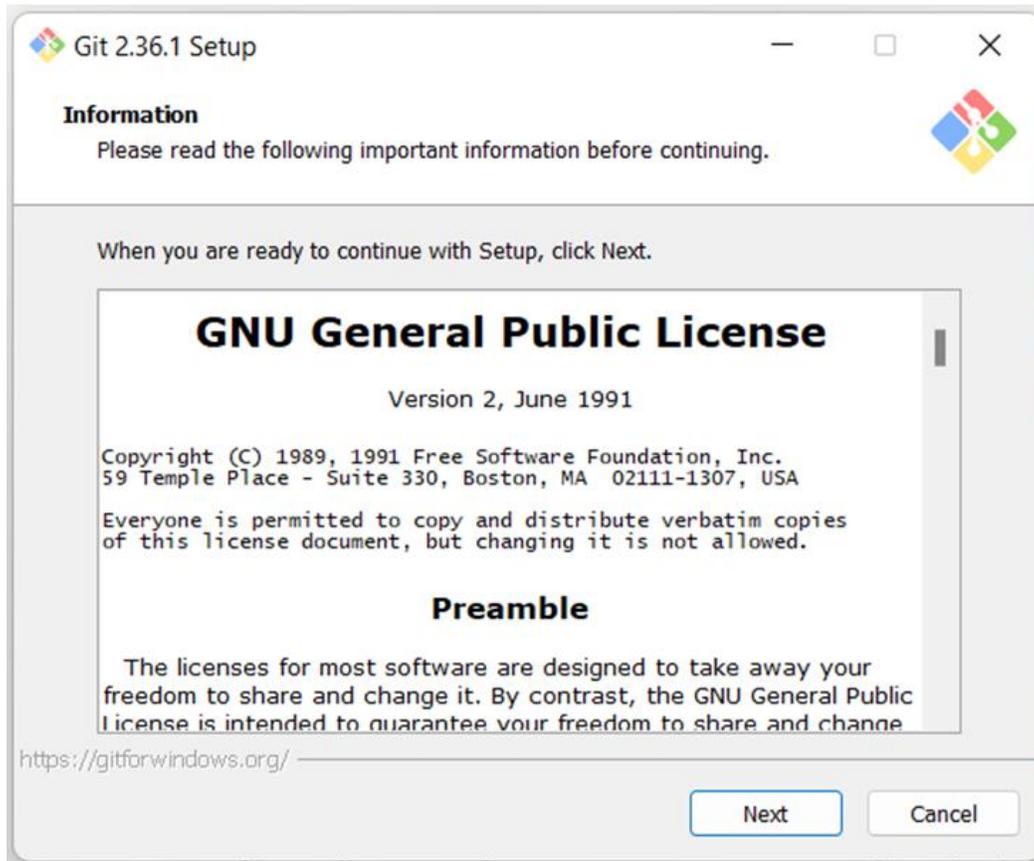
5. Follow the instructions on the installer window to download PyCharm. When complete, you will see the following message:



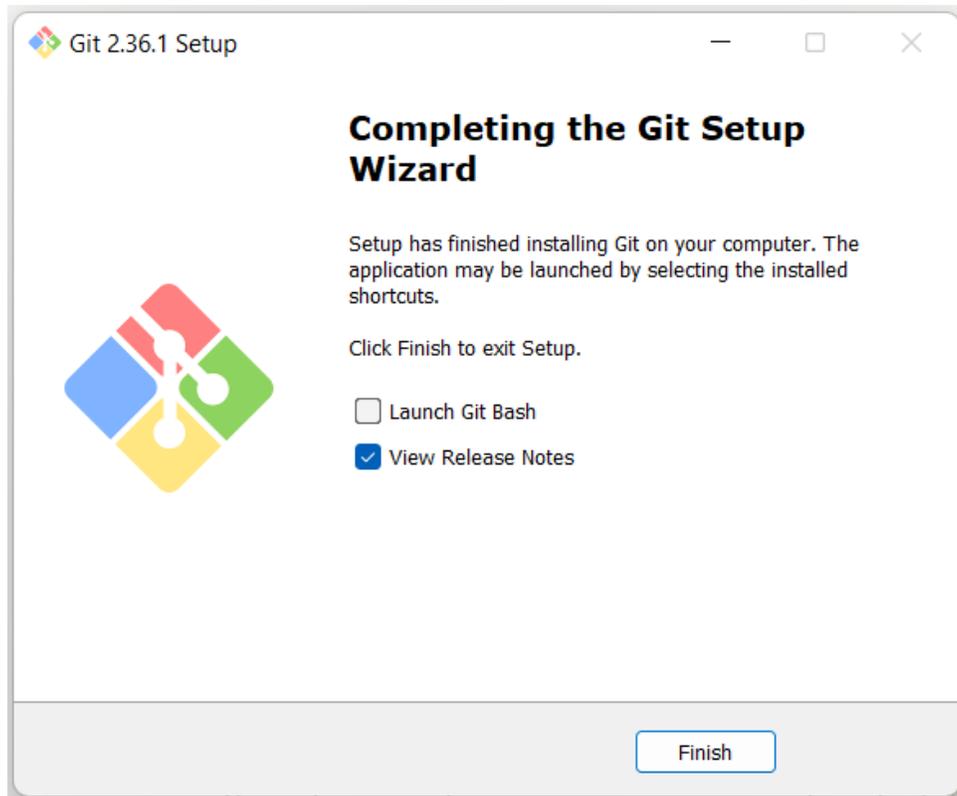
6. Click "Finish."

To install Git:

1. Navigate to <https://git-scm.com/downloads>.
2. Click on your operating system (Windows, MacOS, etc).
3. Click “Click here to download” to download the latest version of Git. This will download a “.exe” file.
4. Open the “.exe” file. This will open the Git installer, shown below:



5. Follow the instructions on the installer window to download Git. When complete, you will see the following message:



6. Click “Finish.”

Updating the UNROCA data

Now that you have all the necessary software to run the map program, you will need to make sure that all UNROCA data is up to date. There are two maps that use UNROCA data: Transparency Indicators and Stockpiles.

To update the transparency data:

1. Open the “UNROCA Country Stockpiles” document in Google Sheets and select the “Transparency” sheet. (https://docs.google.com/spreadsheets/d/1qImMOailJ-5PmKYglZ2Do3mC_V7AO7R8Wx9-N9kKIEQ/edit#gid=0)
2. Open unroca.org.
3. Click on a country’s name on unroca.org to pull up the country’s profile.
4. Click on “Show data availability”. This will show you a history of reports from each country by year.

If there are no new reports for that country, you do not need to change anything for that country in the Google Sheet. If there are new reports, continue:

- In the transparency sheet, add 1 to each category that has a new report. New reports are indicated by a white box with a green checkmark, shown below:

Topics	2021	2020	2019	2018	2017	2016	2015
Exports/Imports	✓	✓	-	✓	✓	-	✓
Military holdings	✓	-	-	-	-	-	-
National production	-	-	-	-	-	-	-
Small arms/light w...	✓	✓	✓	✓	✓	✓	✓

NOTE: UNROCA uses green boxes with white checkmarks to indicate information from a country's trading partners. These boxes should not be taken into account when updating the map data.

To update the stockpile data

- Open the “UNROCA Country Stockpiles” document in Google Sheets and select the “Stockpiles” sheet. (https://docs.google.com/spreadsheets/d/1qImMOailJ-5PmKYglZ2Do3mC_V7AO7R8Wx9-N9kKIEQ/edit#gid=0)
- Open unroca.org.
- Click on a country's name on unroca.org to pull up the country's profile.
- If the country does not have any new reports on “Military holdings”, you do not need to change any other sheets. If the country does have a new report on “Military holdings”, continue:
- Click on “Show data availability”. This will show you a history of reports from each country by year.
- Click “Original Reports” below the country information. This will pull up a list of all reports released by that country, organised by year, shown below:



- Click on the most recent report. The report will open in a new tab.
- Scroll down to “Major conventional arms (Category I–VII) - Military Holdings.” This section of the report will show the number of weapons held by the country in each category, shown below:

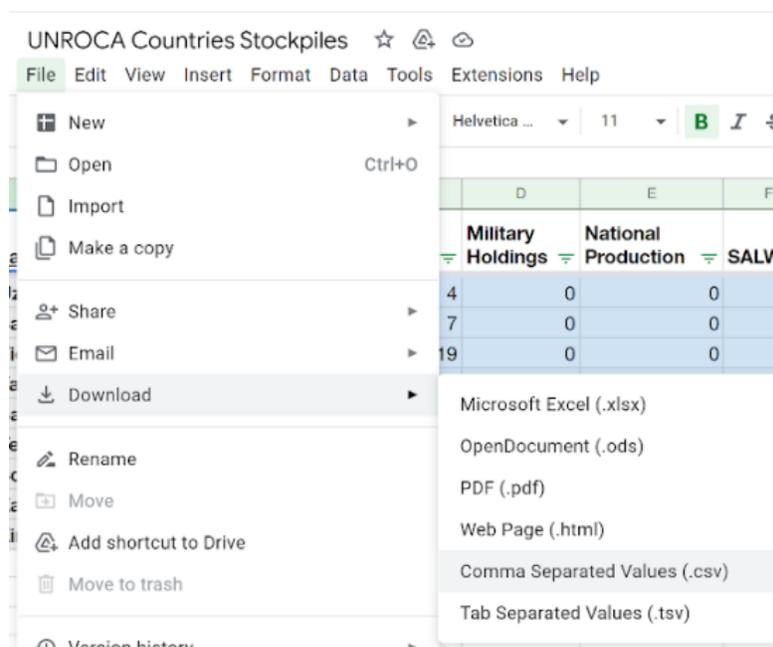
Major conventional arms (Category I-VII) - Military holdings			
Category(I-VII)	Number of Items	Description of Items	Comments on the transfer
I. Battle tanks	324		
II. Armoured combat vehicles	272		
III. Large calibre artillery systems	1375		
IV. (a) Combat aircraft	19		
V. Attack helicopters	7		

9. In the Google Sheet, update the most recent year to reflect the newest report.
10. Update each weapon category (I–VII) to reflect the data in the report. For any category that went unreported, type “-”

When all the updates are completed, you need to download the sheets as “.csv” files.

To download the files:

1. Open the “UNROCA Country Stockpiles” document in Google Sheets and select the sheet you want to download. (https://docs.google.com/spreadsheets/d/1qImMOaiJ-5PmKYglZ2Do3mC_V7AO7R8Wx9-N9kKIEQ/edit#gid=0)
2. Click “File” in the top left. This brings up a drop-down menu.
3. Click “Download.” This will bring up a second drop-down menu.
4. Click “Comma Separated Values (.csv).” This will download the current sheet as a “.csv” file.

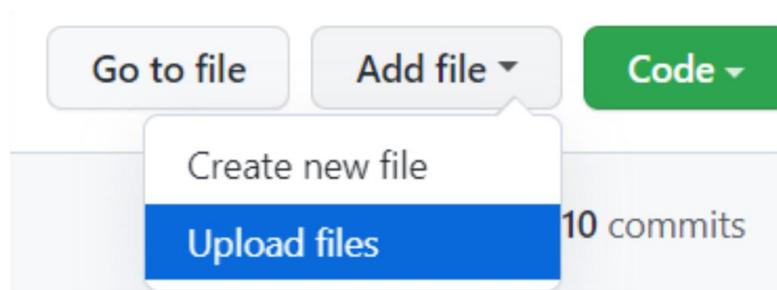


5. Change the file name to be easily identifiable (eg. “Transparency.csv” and “Stockpiles.csv”).

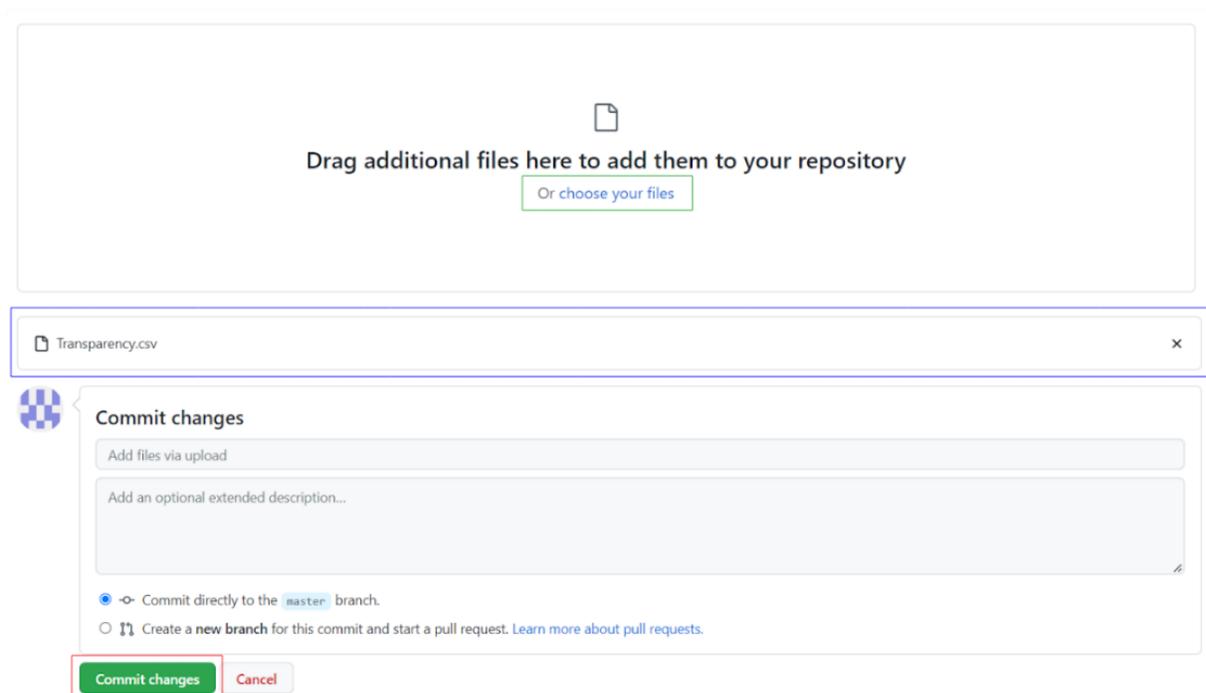
Finally, you will need to upload the updated sheets to the SCRAP GitHub.

To upload the updated sheets:

1. Open github.com
2. Navigate to the following directory: <https://github.com/rjhaly/e22-SOAS-IQP>
3. Click “Sign In” in the top right corner of the page. This will take you to a login page.
4. Log into the SCRAP GitHub account. When successful, the website will reload the directory page.
5. Click “Add file” as shown below:



6. Click “Upload files.”
7. Click “Choose your files” in the box shown below:



8. Select “Transparency.csv” and “Stockpiles.csv”. When a file is successfully uploaded, it will appear below the upload box.
9. Click “Commit changes.”

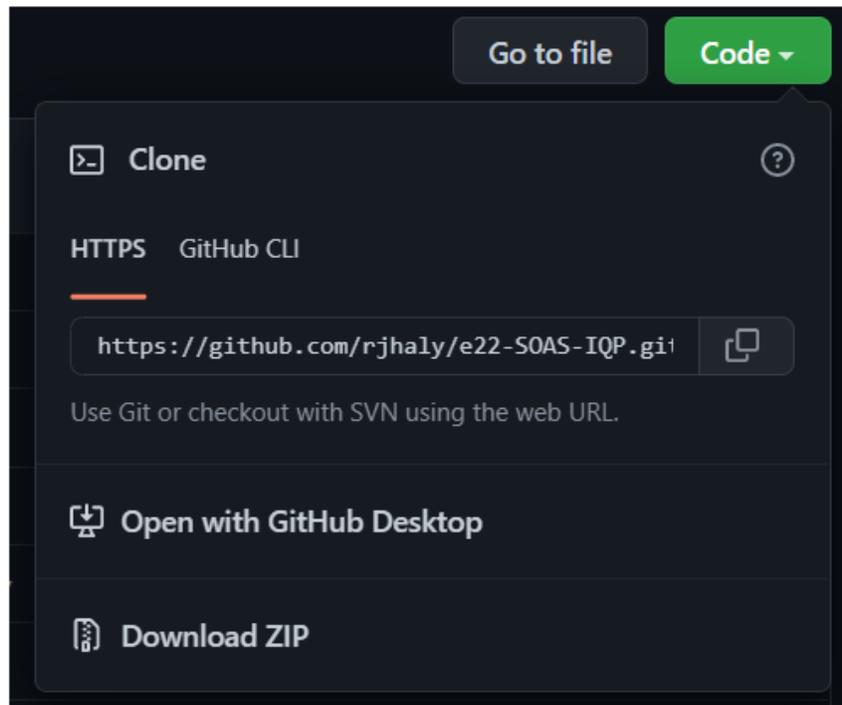
Updating Maps

Now that all you have uploaded the new files to the GitHub directory, you can finally update the maps. The preparation process will be slightly different based on whether or not you have updated the maps from your computer previously.

If you **HAVE NOT** updated the maps from the computer you are using, you will first need to import the map code.

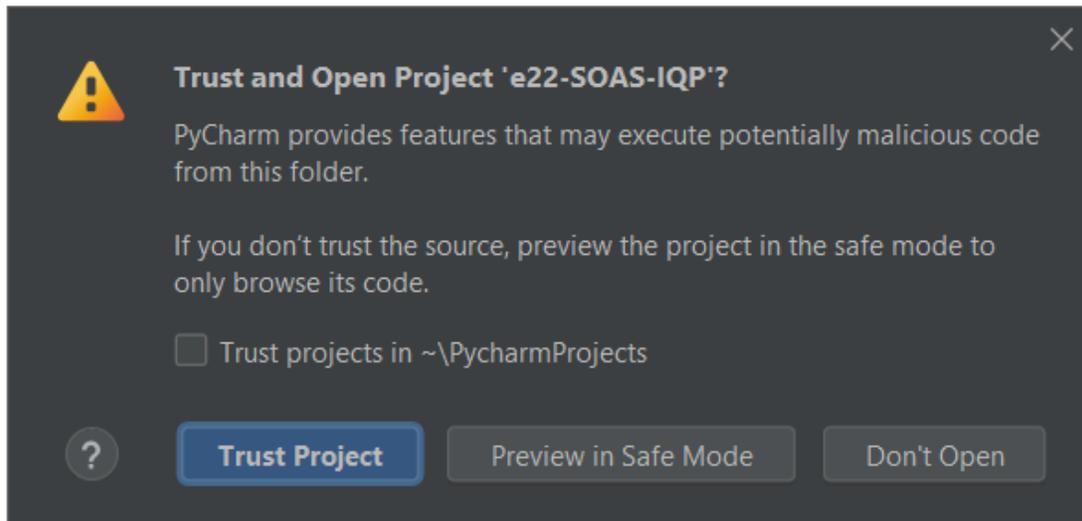
To import map code into PyCharm

1. Open the following directory: <https://github.com/rjhaly/e22-SOAS-IQP>
2. Click the “Code” button. A drop-down will appear containing a HTTPS link, shown below:



3. Copy the HTTPS link.
4. Open PyCharm.
5. Click “Get From VCS” in the top right corner of the window.
6. Paste in the previously copied URL into the text box that says URL.

7. Click the “Clone” button at the bottom right corner of the window. The following pop-up will appear:

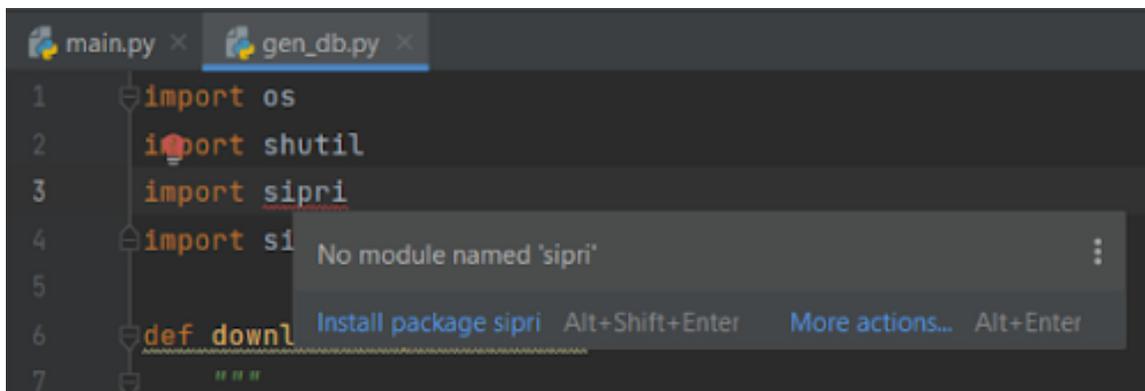


8. Click “Trust Project.”

When updating the maps from a new computer, you will need to install the necessary packages for the code to run properly. Packages are collections of pre-written code that can be used within your project. The packages used in the current map code include “sipri,” “pandas,” and “plotly.”

To install all the necessary packages:

1. Double click “gen_db.py” in the left sidebar.
2. Hover over “sipri” on line 3. A box will appear as you hover, as shown below:

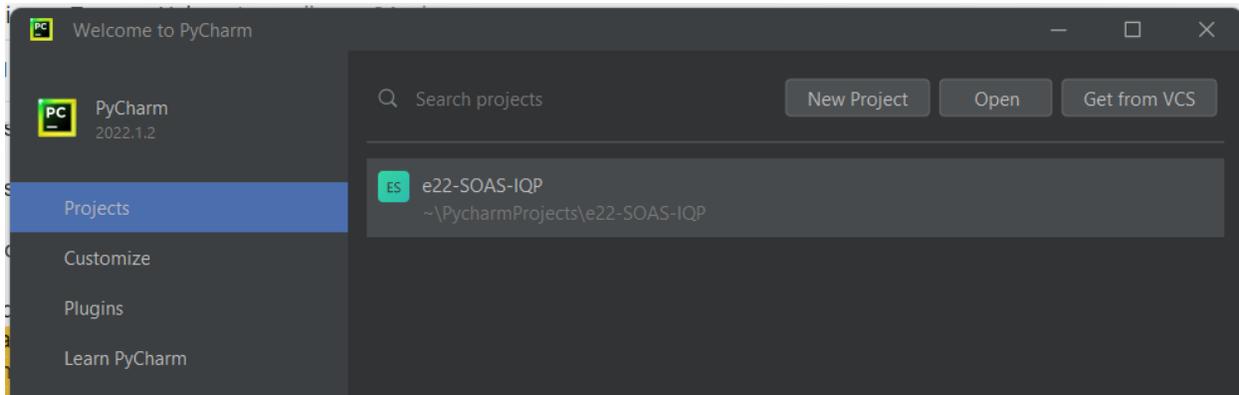


3. Click “Install package sipri.”
4. Double click “db_ops.py” in the left sidebar.
5. Repeat steps 2 and 3 for “pandas” on line 1.
6. Double click on “map_drawing.py” in the left sidebar.
7. Repeat steps 2 and 3 for “plotly” on line 3.

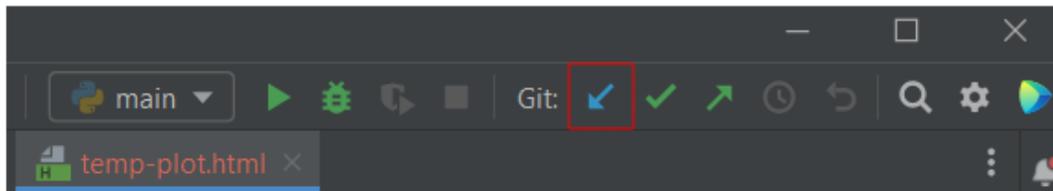
If you **HAVE** updated the maps from the computer you're using, you need to open the project and update it.

To update the project

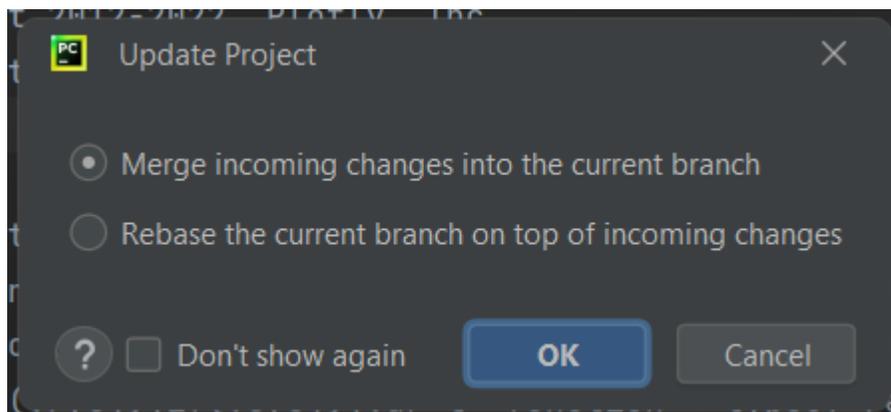
1. Open PyCharm. If these are the only Python files on your computer, it should open the project automatically. If it does not open automatically, PyCharm will open to your recent projects, shown below:



2. Click on the project titled “GWTP-Maps.” This will open the project.
3. Click the blue arrow in the top right of the window (the update project button), shown below:



When clicked, the following pop-up will appear:



4. Click “OK.” The project will then update.

Now that all files are open and up to date, you can run the code to create the maps.

To run the map code:

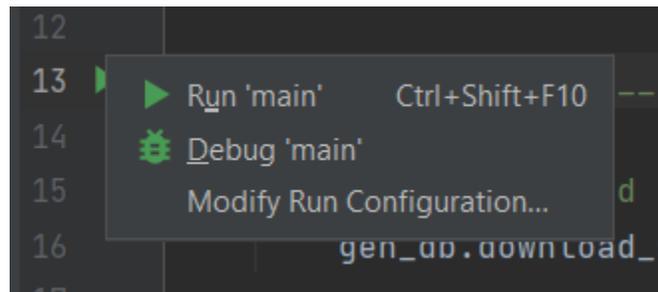
1. Double click “map_drawing.py”
2. On line 53, change the second year to the most recent year for data (eg. change “2021” to “2022”), shown below:

```
48 fig = px.choropleth(transparency_df,
49                     locations=transparency_df.index,
50                     hover_name="name",
51                     color="Total Reports",
52                     hover_data=['Exports/Imports', 'Military Holdings', 'National Production', 'SALW'],
53                     title="Transparency Indicator: Number of voluntary UNROCA weapon reports 1992-2021",
54                     color_continuous_scale="greens",
55                     projection="robinson")
```

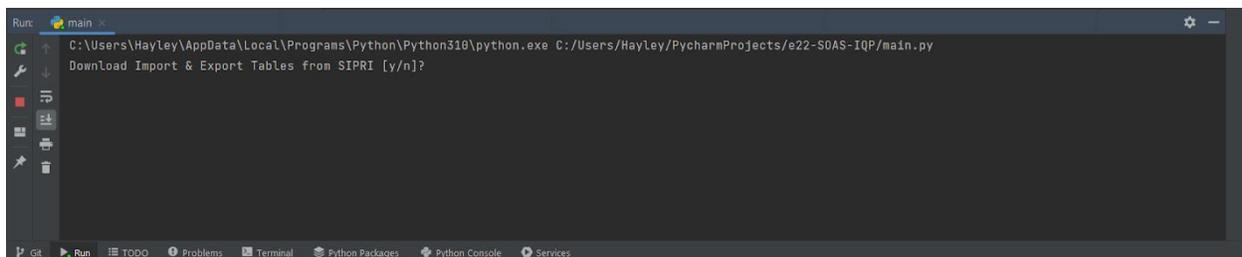
3. Double click “main.py” from the left sidebar.
4. Click on the green arrow next line 13, shown below.

```
12
13 ▶ if __name__ == "__main__":
14
```

When clicked, the following options will appear in a drop-down:



5. Click “Run ‘main’.” This will start running the program. When successful, a console will open at the bottom of the screen that allows you to interact with the program. The console will provide you with a prompt. The first prompt is for downloading the SIPRI data, seen below:



6. Click somewhere on the console.
7. Type “y”, and hit enter/return. This will download all the latest data from SIPRI.
8. NOTE: If you are updating the maps and there is no new SIPRI data to download, type “n” instead to avoid waiting the lengthy download time.
9. Once the download is complete, the console will present the following prompt:

```
Perform import & export over-time database operations [y/n]?
```

10. Type “y” and hit enter. This will transform the SIPRI data into the maps.

At this point, the program will be ready to produce the maps. You will be prompted to choose which maps you would like to draw, which can then be added into Wordpress.

Uploading the Maps to Wordpress

The following procedure picks up where the previous procedure left off.

To input the maps in Wordpress:

1. Type “y” next to the prompt for the first map and hit enter. The map will display in a new tab in your default browser.
2. Copy this:

```
<html>
```

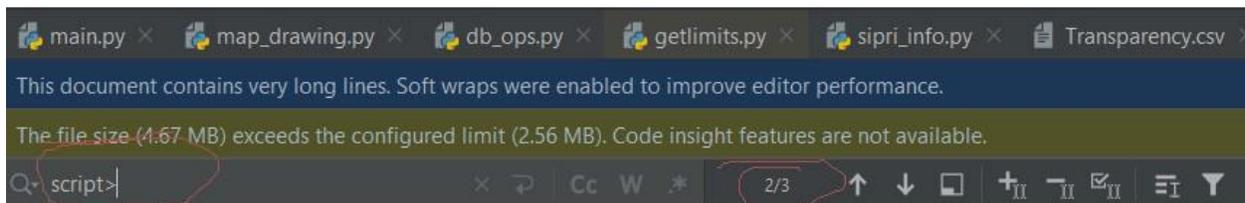
```
<head><meta charset="utf-8" /></head>
```

```
<body>
```

```
  <div>                <script type="text/javascript">window.PlotlyConfig = {MathJaxConfig:
'local'};</script>
```

```
    <script src="https://cdn.plot.ly/plotly-latest.min.js"></script>
```

3. Open “temp-plot.html”
4. Control+F to search the code (command+F on MacOS).
5. In search box near top, type “script>” as shown below:



6. Click the down arrow to 2/3.
7. Click directly after the highlighted “script>” shown below:

<input type="checkbox"/> Title	Shortcode	Alternative Shortcode	Edit	Delete	Duplicate
<input type="checkbox"/> Stockpiles Map	[WP-Coder id="4"]	[WP-Coder title="Stockpiles Map"]	edit	delete	duplicate
<input type="checkbox"/> Transparency Map	[WP-Coder id="3"]	[WP-Coder title="Transparency Map"]	edit	delete	duplicate
<input type="checkbox"/> Export Map	[WP-Coder id="2"]	[WP-Coder title="Export Map"]	edit	delete	duplicate
<input type="checkbox"/> Import Map	[WP-Coder id="1"]	[WP-Coder title="Import Map"]	edit	delete	duplicate
<input type="checkbox"/> Title	Shortcode	Alternative Shortcode	Edit	Delete	Duplicate

16. Click edit next to the desired map. This will bring up the code for the outdated maps.

17. Click anywhere within the html section.

18. Hit Control+A (command+A on MacOS) to select all the html and Control+V (command+V on MacOS) to paste the map code.

19. Click the "Update" button.

20. Repeat the entire procedure for each map.

Additional CSS

There may come a point in which you are unable to style the website to your liking using the Wordpress and Elementor editors. To further style the website, you will have to use CSS. CSS, or Cascading Style Sheets, is a coding language that determines how elements of a website are styled. When adding additional CSS, you are changing the CSS code itself instead of using the editor. This allows for expanded editing on the website's styling. Even if you do not know how to code, you may be able to lightly edit the CSS without prior exposure. There are two common ways of learning what CSS to add: Google or Inspect.

Google

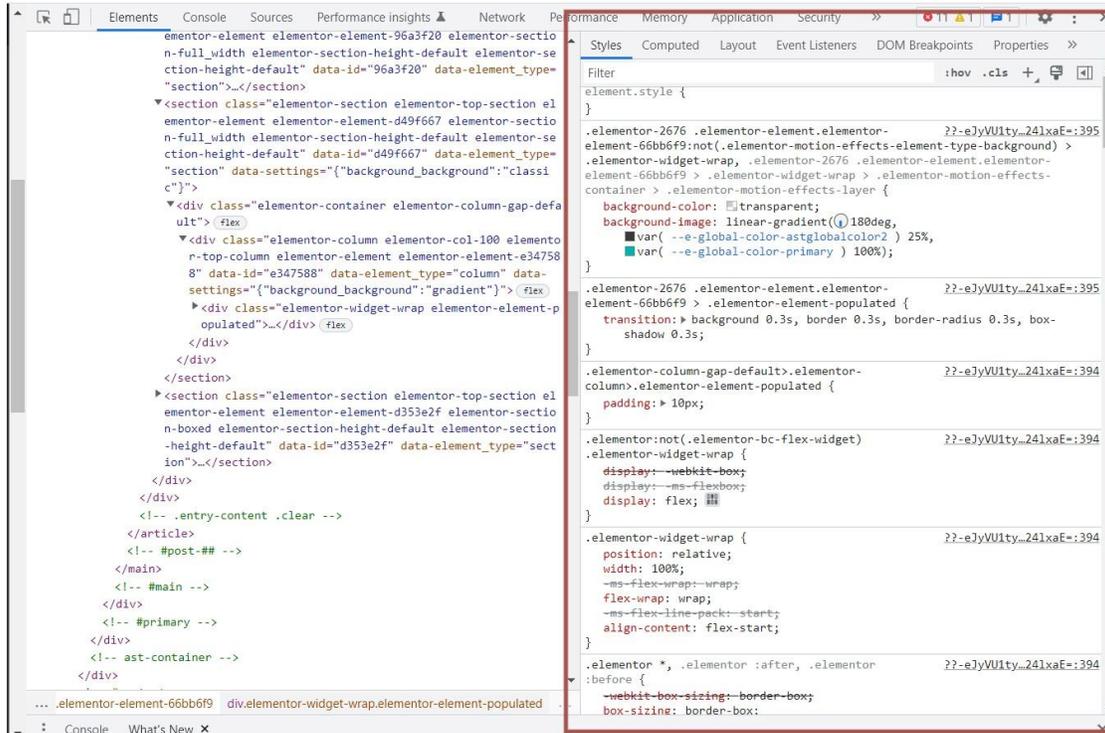
If you are having a problem with styling something in Wordpress, there is a good chance someone else has had the same problem. Sometimes they will post their problem to online forums and someone else answers them with a CSS solution. Sometimes you are able to copy that solution into your additional CSS section and it will work.

Inspect

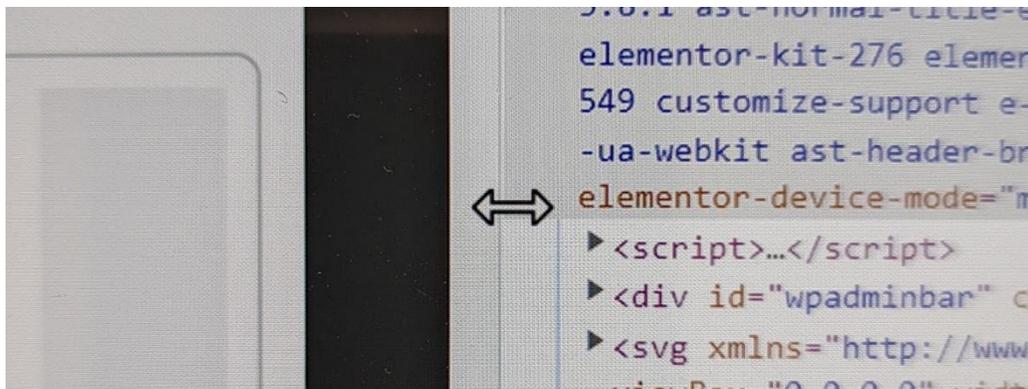
Inspect element allows you to view the HTML and CSS code that make up the website. By editing the CSS of the website in inspect element, you are able to find out what CSS needs to be added to Additional CSS to style elements how you would like.

To use inspect element

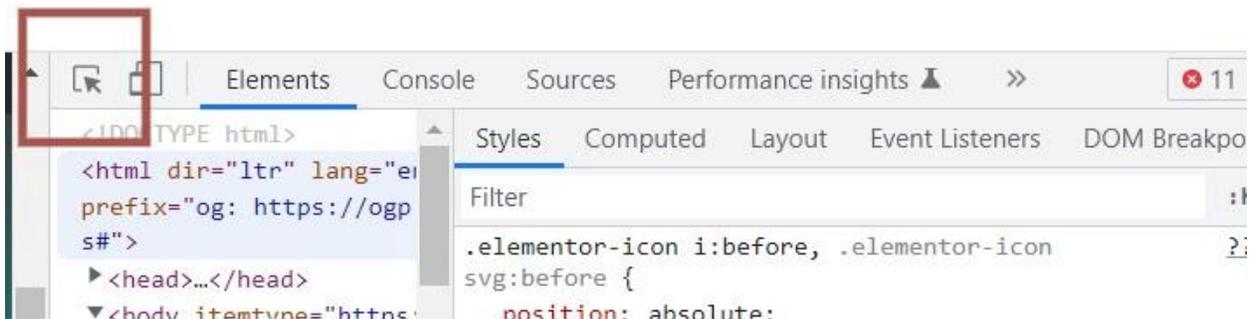
1. Right click on the element you would like to change.
2. Click inspect. This will open the inspect element page, specifically the “style” tab, shown below:



NOTE: You may want to make the element tab smaller so that you can see more of the screen. This can be done by hovering over the line in between the “element” and the website on the left. When your mouse changes to the icon below, click and drag to resize the element window



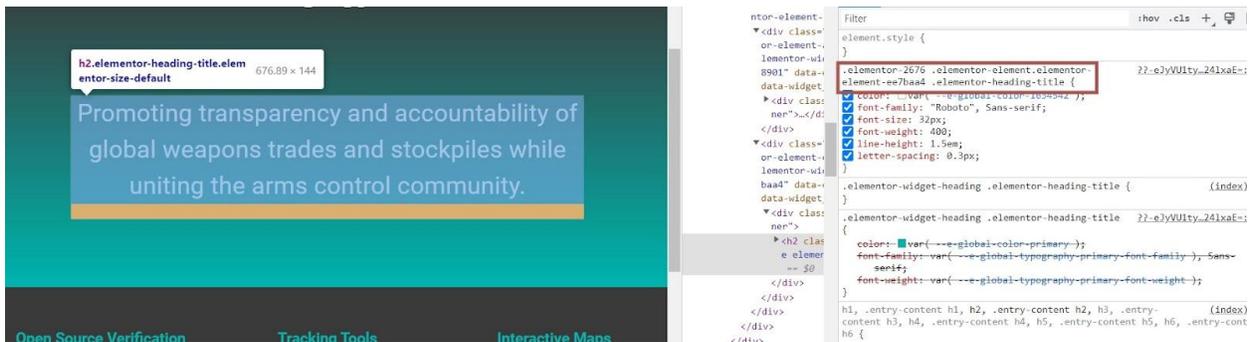
3. Click the box with the cursor in the top left of the inspect element menu, shown below. This will allow you to select exactly which element of the page you would like to edit.



4. Click on the exact element you would like to edit.

NOTE: If it is not the right element the process will not work correctly. You may have to use trial and error for a bit as you find out what elements can be edited.

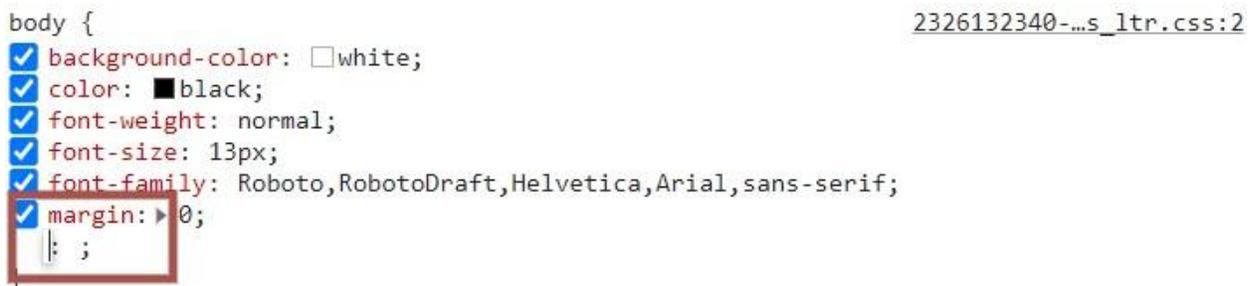
Under the style tab, there will be a long list of CSS sections. One of them will be the correct one. It is usually the first or second one. You can hover over the title of the section on the right and see what is highlighted on the left to get a better sense of what the CSS section is actually styling.



Once you have found a section you think may style the element correctly, you can add CSS to the section and see if it styles it at all.

To add CSS

1. Click anywhere in the section that is not a piece of code. This should add a new line with a colon and a semicolon, shown below. Here you can type the necessary CSS code for your purposes.



To help you find ways to edit the element, we provided a list of common CSS properties:

https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Properties_Reference

The most important properties are:

- Background: Sets the colour of the background of the element.

- Colour: Sets the colour of the element.
 - Visibility: Sets the element to be either visible or hidden.
2. Once you find the property that you would like to edit, type it into the section along with any syntax that might be necessary, including variables that may be necessary. An example is shown below:

property variable

background:

#00b5af;

NOTE: Syntax in coding is highly specific. Each character has to be exactly correct for the computer to understand and execute the line of code. Therefore, try to follow the references from the link above as closely as you can. A trick to tell if you have gotten the syntax of the line of code correctly is to see whether a checkbox has appeared next to the line of code, or if the line has been struck through with a yellow warning symbol, shown below:

```
body { 2326132340-...s_ltr.css:  
✓ background-color:  white;  
✓ color:  black;  
✓ font-weight: normal;  
✓ font-size: 13px;  
✓ font-family: Roboto,RobotoDraft,Helvetica,Arial,sans-serif;  
✓ margin: ▶ 0;  
⚠ afsdj: asdf; Incorrect Syntax  
✓ visibility: visible;  
}
```

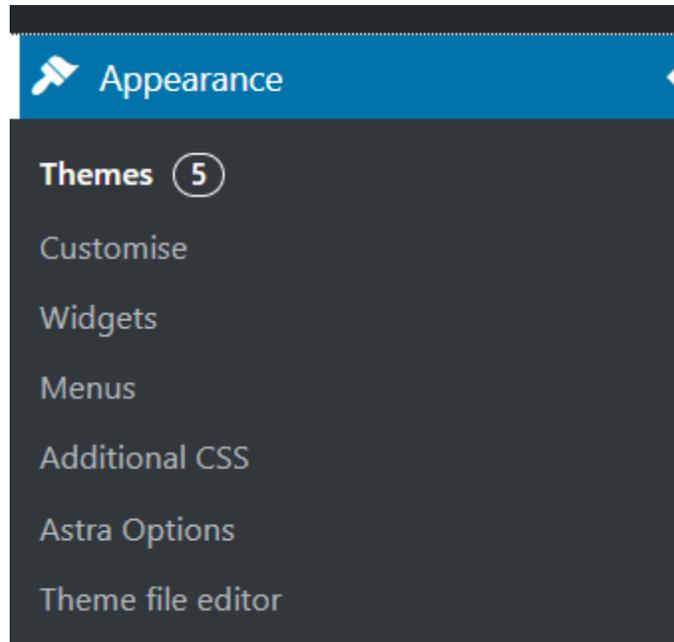
On the left of your screen, the element should be updated to reflect your changes.

NOTE: If the element did not update, one of the above steps was incorrect. First delete the line of code you just wrote. Then, try another CSS section under the style tab. If that continues to fail, attempt steps 3-4 again. If that does not work, you may be using the wrong CSS Property. Keep trying new sections, new elements, and new lines of code until you get it. These changes are not applying to the actual website, just your screen. Therefore you can edit CSS as much as necessary and it will not affect anything.

Once the CSS property has been successfully altered, you can edit the additional CSS in the website.

To create the desired CSS alterations

1. Copy the entire section that you changed.
2. Navigate to your Wordpress dashboard.
3. Click “Appearance” in the sidebar, shown below:



4. Click “Customise.” This will open the theme editor.
5. Click “Additional CSS.” You should see a text box on the left with some CSS already inside of it, shown below:

```
1 .post-navigation .nav-links {
2   visibility: hidden;
3 }
4 .ast-separate-container .ast-
archive-description, .ast-separate-
container .ast-author-box {
5   background-color: #3a3a3a;
6   padding-bottom: 0;
7   border-bottom: 0;
8 }
9 img {
10  background: #fff;
11  border: 0;
12 }
```

6. Paste the CSS you copied into the box underneath the CSS already in the Additional CSS text box.

NOTE: Make sure you paste the CSS outside the curly brackets of the other CSS sections.

The element on the website should now be changed to reflect your CSS and you can update the website accordingly.

Appendix G: Search Engine Optimization Keyword Scoring Table

Each page was given three potential keywords. The All-in-One SEO plug-in returned a score for each individual keyphrase given the length of the keyword and if the keyphrase was found in the title and description of the search engine result, in the page intro, in the page URL. Note that the bold keyphrase for each page is the selected keyphrase for that specific page.

Page	Potential Keyphrase	Keyphrase Found in Page's Search Engine Title (Y/N)	Keyphrase Found in Page Intro (Y/N)	Keyphrase Found in Page URL (Y/N)	Keyphrase Found in Search Result Description (Y/N)	All-in-One SEO Keyphrase Score
Home Page	“Global Weapons Tracking”	Y	N	Y	Y	73/100
	“GWTP”	N	N	N	N	47/100
	“Home”	N	N	N	N	47/100
About Page	“Global Weapons Tracking”	Y	N	Y	Y	68/100
	“About Us”	Y	N	Y	Y	76/100
	“GWTP”	N	N	N	N	44/100
Open Source Verification	“Open Source Verification”	Y	N	Y	N	71/100
	“Open Source”	Y	Y	Y	N	85/100
	“Open Source Tracking”	N	N	N	N	46/100
Tracking Tools	“Tracking”	Y	Y	Y	Y	80/100
	“Live Tracking”	N	Y	N	Y	63/100
	“Tracking Tools”	Y	N	Y	N	59/100

Interactive Maps	“Interactive Maps”	Y	Y	N	Y	69/100
	“Global”	Y	Y	N	N	59/100
	“Global Interactive Maps”	N	Y	N	N	42/100

Appendix H: Organisation Description Review

Each organisation listed within the portal currently includes a website description approved by each of the organisations themselves. However, many of these current descriptions have grammatical errors or lack important information. In this review, each of the errors was identified, and a new potential description was included. Although certain descriptions did not have errors, a potential description was included anyways. The pink highlighted sections of text are portions of description copied from the organisation's website

Organisation	Current Website Description	Current Errors	New Potential Description
Open Nuclear Network	Open Nuclear Network works to reduce nuclear risk in response to conflict or error. A group of analysts collect data to create informational Briefs. Open Nuclear Network is also creating a network of third parties to improve the dialogue among world leaders and decision makers on nuclear de-escalation	Information is too segmented.	Open Nuclear Network aims to reduce the threat that nuclear weapons will be used in response to error or uncertainty. They create informational briefs based on analysis of open source data with the goal of influencing global policy decisions.
Corruption Tracker	The Corruption Tracker Project ("Tracker", "CT") aims to create an up-to-date, online tracker of all cases and robust allegations of corruption in the global arms trade. The project brings together a network of journalists, academics, and activists in the field, who contribute to an online database documenting the cases and allegations.		Corruption Tracker consists of a network of journalists, scholars, and activists who provide up-to-date information on allegations of corruption in the global arms trade. Corruption Tracker exposes corruption in the arms trade with the goal of demonstrating the impact of the arms trade in global politics.
SIPRI	SIPRI compiles trade reports of munitions detailing the number, designation, and destination of these trades. SIPRI's information includes most trades beyond the classification of "small arms". SIPRI sources their information from a variety of sources all of which are open source.	Use conventional weapons instead of "small arms" "SIPRI sources their information from a variety of sources..."	SIPRI compiles open source weapons data into trade reports detailing the number, designation, and destination of these trades. SIPRI's information includes imports and exports of both conventional weapons and weapons of mass destruction
Bonn International Centre for Conflict Studies	The BICC is a research based organisation that mainly focuses on worldwide peace and conflict research. Their research can be put under three clusters that are strongly interrelated: Armament and arms control, dynamics of violent conflict, and order and change.	The work that BICC does can be condensed to increase succinctness	The Bonn International Centre for Conflict Studies (BICC) is a think tank focused on peace and conflict research. BICC conducts research, makes policy recommendations, and provides training for disarmament and arms control.

Campaign Against Arms Trade	Campaign Against Arms Trade (CAAT) is a UK-based organisation working to end the international arms trade. They track and share information about arms sales and support activists to campaign on this issue.		Campaign Against Arms Trade aims to end the international arms trade to improve global security. They share data on weapons transfers from the United Kingdom and Europe and publish articles on current events in the global arms trade.
Lighthouse Reports	Lighthouse Reports offers newsrooms that are open to journalists so they can collaborate, learn new techniques, and pool their knowledge together to tackle complex stories. One of those newsrooms is for tracking EU arms exports to see where they end up.	Discussing collaborative journalism would be important for their description. The work that Lighthouse Reports does can also be condensed to increase succinctness.	Lighthouse Reports uses collaborative journalism to deliver reports on complex topics. They have newsrooms dedicated to arms tracking, borders, food systems, migration, war winners, and waste.
Stanford CISAC	The Mapping Militants Project provides a wide variety of maps detailing the spread of different militant groups around the globe. It also features profiles for these groups going in depth about where they are located as well as their modus operandi.	No addition of Stanford CSIAC. Militant group information needs revision to increase comprehensibility.	The Stanford CISAC Mapping Militants Project provides interactive maps detailing the rise of global militant groups. The project also features detailed profiles for different militant groups, including information on their history, strategy, and major attacks.
EU Arms Project	The EU Arms Project aims to keep track of the arms exports that occur in Europe. With the help of journalists, investigators, and experts, the whereabouts of the exports of small and large weapons are monitored. This is important information to have so that weapons do not end up in conflict zones or end up violating human rights.	Remove the “why the information is important”	The EU Arms Project tracks the exports of small and large arms from Europe and allows users to view a map providing detailed information on arms exports from European nations. Their website also includes video investigations on the impact of European weapons exports.
C4ADS ConflictID	C4ADS has a project called ConflictID which deals with images of weapons in South Sudan. They collect, categorise, and analyse these pictures from the conflicts going on there since there isn’t a lot of documentation for it. They have images of small arms; light and heavy weapons; and vehicles.	The description is too informal.	The C4ADS ConflictID project seeks to document weapons from conflict zones in South Sudan. They collect and analyse images of weapons from the conflict zone in order to classify and document the weapons present in the area. In documenting these weapons, the project aims to improve the accessibility of weapons data in South Sudan.
Federation of American Scientists	Founded in 1945, the Federation of American Scientists provides science-based analysis of and solutions to protect against catastrophic threats to national and international security. The FAS Nuclear Information Project provides a snapshot view of different nuclear-armed countries, looking into global weapons programs as well as their effect on national security issues.	Too long for a description. Unnecessary information, such as the founding year, could be removed.	The Federation of American Scientists (FAS) is a nonprofit organisation that presents a science-based analysis of national security threats posed by nuclear, chemical, and biological weapons. Additionally, they conduct policy research to provide solutions for issues of national security and government secrecy.

	The Nuclear Notebook, published in the Bulletin of the Atomic Scientists, is one of the most widely sourced reference materials pertaining to the status of nuclear weapons.		The FAS Nuclear Notebook is a project that publishes information on the weapons programs of nuclear-armed nations.
James Martin Center for Nonproliferation Studies	CNS strives to combat the spread of weapons of mass destruction (WMD) by training the next generation of nonproliferation specialists and disseminating timely information and analysis. It is the largest nongovernmental organisation in the United States devoted exclusively to research and training on nonproliferation issues. It is located at the Middlebury Institute of International Studies at Monterey, with additional locations in Washington, DC and Vienna, Austria as the Vienna Center for Disarmament and Non-Proliferation (VCDNP).	No need to include information about additional locations.	CNS strives to combat the spread of weapons of mass destruction (WMD) by training the next generation of nonproliferation specialists and disseminating timely information and analysis. It is the largest nongovernmental organisation in the United States devoted exclusively to research and training on nonproliferation issues. It is located at the Middlebury Institute of International Studies at Monterey
RUSI Project Sandstone	RUSI Project Sandstone is an effort to expose North Korean illicit shipping networks. Project Sandstone uses open-source data-mining and data-fusion to spot activity. This project doesn't use classified data to be able to provide evidence to those who enforce policy.	The first sentence is problematic.	RUSI's Project Sandstone uses open-source intelligence to determine the locations of illicit North Korean shipping networks. In using open source information, RUSI seeks to provide evidence of North Korea's activities to those who enforce policy.
ACLED	ACLED collects real-time data on political violence and protest events.	Needs more information.	ACLED is an organisation that maps crisis events based on its collection of real-time data on political violence and protests. They also conduct data analysis to further understand conflict events. ACLED aims to provide accessible data on global conflict.
Bellingcat	Bellingcat is a network of citizen journalists. This organisation gathers stories and articles where contributors use open source information and social media to cover a variety of subjects. Bellingcat uses open source information to help uncover important information on serious and relevant topics and bring this to the public's attention.	The first two sentences could be combined.	Bellingcat is a network of citizen journalists who participate in open source research and social media investigations to produce articles covering a variety of subjects. By creating reports using open source research, Bellingcat draws the public's attention toward important information on current events.
New York Times Visual	The New York Times Visual Investigations Unit creates video investigations that focus on		[Keep this description]

Investigations Unit	explaining different major events that occur. They are dedicated to discovering the truth and interpreting incidents on a wide range of topics through investigative reporting and forensic analysis.		
The Xinjiang Data Project	This source provides research on the Human rights situation for Uyghurs and other non Han nationalities in the Xinjiang Uyghur Autonomous Region in Western China. Using open source data this source endeavours to provide information on human rights issues in the region.	Numerous spelling mistakes.	The Xinjiang Data Project provides research on the ongoing humanitarian crisis in western China for Uyghurs and other non-Han nationalities. The project uses open source data to highlight the mass internment camps, forced labour, surveillance, and other human rights issues affecting the region.
Human Rights Center, Berkeley	The Human Rights Center at the University of California, Berkeley researches human rights violations and figures out ways to protect the people being victimised.	More information needs to be added on the training performed by the Human Rights Center.	The Human Rights Centre at the University of California, Berkeley investigates war crimes and human rights violations, and they train students and advocates on how to perform human rights investigations. Their goal is to combat human rights violations and protect victimised groups.
Amnesty Citizen Evidence Lab	The Citizen Evidence Lab intends to support human rights organisations, practitioners, and others to take better advantage of digital data-streams for modern fact finding. It's a place to share practices, techniques, and tools for a more informed public.		The Citizen Evidence Lab allows individuals to learn modern verification and investigation tools to increase the accessibility of open source research on human rights issues. They aim to improve tools for open source investigation and combat the spread of misinformation.
ACAPS	ACAPS provides independent and multi sectoral analysis on humanitarian crisis around the world. ACAPS produces reports and analysis for humanitarian responders so they have a better understanding of the crisis and are able to address the needs of the affected population	The second sentence should be condensed to ensure the point is comprehensible.	ACAPS performs independent analyses of global humanitarian crises. They produce reports on their findings to help provide necessary information to humanitarian actors to improve the efficacy of their crisis response.
Forensic Architecture	Forensic Architecture investigates state and corporate violence, human rights violations and environmental destruction all over the world. Their work often involves open-source investigation, the construction of digital and physical models, 3D animations, virtual reality environments and cartographic platforms.		Forensic Architecture uses open source information, 3D modelling, and architectural techniques to investigate cases of state violence and human rights violations globally.

	Within these environments they locate and analyse photographs, videos, audio files and testimonies to reconstruct and analyse violent events.		
Syrian Archive	Syrian Archive is a Syrian led project that aims to preserve, enhance and memorialise documentation of human rights violations and other crimes committed by all parties to conflict in Syria for use in advocacy, justice and accountability.		Syrian Archive is a project producing open source research tools for reporting on human rights violations in Syrian conflict zones. They aim to increase awareness of human rights violations in Syria through its database of verified digital records from researchers in Syria.
VERTIC	Vertic verifies and monitors Nuclear materials, environment and sustainable development, conventional and cyber weapons, chemical weapons' precursors, and human animal and plant pathogens and toxins. Vertic also works to support the development verification and implementation of international agreements.	VERTIC is not capitalised. Also, there is too much listing within this description.	VERTIC is an independent organisation that conducts research and analysis of international policy in order to support the development, verification, and implementation of international agreements. VERTIC verifies and monitors nuclear, biological, chemical, and conventional weapons to increase international transparency in implementation.
OSCE	OSCE helps you learn how to collect, verify, and analyse data from open source technologies to help monitor human rights violations. Examples of where this data can come from are social media, images, videos, mapping tools, and satellite imagery.	Using pronouns regarding the website visitor. Also, do not use the word "examples"	OSCE is an intergovernmental organisation that addresses a wide range of security-related concerns ranging from the military, politics, economics, environmental threats, and human rights issues. OSCE also provides training on collecting, verifying, and analysing open source data to monitor human rights violations.
OSINT Combine	OSINT Combine's goal is to educate you in finding, understanding, and using open source information. They also help organisations develop open source intelligence capability to support their operational requirements.	The second sentence is grammatically incorrect and lacks information	OSINT Combine is a business dedicated to educating people on open source intelligence. Their training courses, software products, and free tools provide users the information necessary to access, understand, and use open source data.
Flightradar24	A leader and trusted source of precision live flight tracking data to industries around the world with customised products for aviation, business intelligence and emerging markets alongside world class apps.	The description feels like an advertisement and not a description of what's on the website.	Flightradar24 is a live flight tracker showing global aircrafts and airports. Selecting a plane or airport allows users to view flight information. The website also presents live aviation statistics.
Plane Finder	A leader and trusted source of precision live flight tracking data to industries around the world with customised products for aviation,	No details on what is actually on the website.	Plane Finder provides accurate live flight tracking data. The homepage of the website shows a live flight map, and clicking on a plane brings

	business intelligence and emerging markets alongside world class apps.		up information about the plane and its flight. The website also contains a database of flights.
N2YO	This is a satellite tracker. It shows a map of the world and shows the satellite of your choosing on the map. It then shows a track of where it was and its projected path. You also can get a lot of information about each satellite like launch date, period, and a blurb about the satellite itself.	Using pronouns regarding the website visitor.	N2YO is a satellite tracker. By selecting a satellite, you can view a map showing its location and projected path. In addition, you can view more technical information such as altitude and velocity beside the map.
Marine Traffic	This is a ship tracker. It shows a global map of all active ships and ports. You can hover over them to see how their location was obtained or their destination. You can also view the details and status of the ships as well as a density map of ship routes among other things.	Using pronouns regarding the website visitor.	Marine Traffic is a shipping tracker showing a global map of all active ships and ports. Hovering over a ship provides information on the type of vessel, how its location was obtained, or its destination. The website also uses different map features, such as a density map, to show global ship routes.

Appendix I: Outreach Strategy Study

After determining that the changes that we made to the Global Weapons Tracking Portal (GWTP) successfully improve the ability to inform an audience on weapons transparency issues, we looked to expand the traffic to the website. Our team developed an outreach strategy review guide to assist the SCRAP Weapons team in developing virtual outreach strategies to increase traffic to the GWTP.

Methods

Our team completed a literature review to establish effective ways to increase traffic to the website. Our team systematically searched through the virtual library database offered by the WPI Gordon Library. We initially limited our results to articles and book chapters to restrict the usage of research completed by private corporations. We expanded our literature review to web resources to increase the information for certain outreach strategies with limited academic research. Our team compiled the information gathered into a deliverable guide on outreach strategies. Our team first identified an overall procedure for completing a virtual advocacy outreach campaign. Also, within our team's generalized research into virtual outreach campaigns, we identified tips for developing a strong virtual advocacy outreach campaign, not specific to any outreach strategies. Then, we narrowed our literature review to inform each step within our compiled procedure. Our research for each stage informed what keywords to use for the following step. Specifically, we researched different target audience sizes, determining benefits and potential strategies which could fall under each size of a potential audience group. We also researched the potential outreach strategies our team compiled for each target audience size researched. We ensured that our studies of each outreach strategy included both qualitative and quantitative data so we could best understand and document each strategy's overall efficacy. We sent this compiled information to members and affiliates of the SCRAP Weapons team who manage the GWTP website to determine who their potential audience would be, so we could recommend outreach programs. The team consisted of Dan Plesch, Henrietta Wilson, Zahraa Kapasi, and Eloisa Romani, senior members of the organization, along with Martin Butcher, an employee at Oxfam and an affiliate of SCRAP.

Our team held interviews with each of the SCRAP employees and affiliates we sent the initial outreach strategy review guide draft. We first asked preliminary questions so our team could gain a greater understanding of the past outreach strategies of the GWTP website. Particularly, we wanted to know the outcomes of various past outreach strategies, specifically those involving diverse audience sizes. We also inquired which regions (United Kingdom, United States, European Union, etc.) had the most amount of people visiting the GWTP website, and which regions the SCRAP Weapons team wanted to increase their viewership in. Finally, we asked about the occupations of the individuals currently visiting the website, and which occupational groups the SCRAP Weapons team wanted to increase outreach to. We conducted this portion of the interview in a structured format (for more detail on the questions our team asked, see Appendix J.1). The interviewees may lack knowledge regarding the demographics of the website's visitors due to the recent launch of the website. Therefore, our team expects limited responses to these questions.

Immediately following these preliminary questions, we discussed the Outreach Strategy Review Guide with each interviewee. We wanted to ensure each member of the team understood the different strategies that our team compiled. This section was unstructured, allowing the interviewees to ask questions themselves so they could better understand each strategy. Furthermore, by having these sections unstructured, each interviewee had more freedom to discuss outreach strategies that intrigued them. Discussing the review guide with each senior member of SCRAP allowed us to create a comprehensible report as well as an outreach strategy recommendation for the SCRAP team to proceed with. A potential limitation of this method was the hierarchy of the SCRAP Weapons team. If conflicting opinions about the future of the website arose during the interviews, our team would need to weigh Dan Plesch's opinion more heavily due to his authority on the SCRAP team. Ultimately, given the strategies we compiled and critiqued, we developed an implementable outreach strategy for a recommendation.

Findings

Research of virtual outreach strategies

Our team's segmented literature reviews helped establish the outreach strategy review guide. First, to ensure maximum comprehensibility, our team simplified each of the five steps to creating an outreach strategy under a basic question – why, who, what, how, and when (see Appendix J.2 for the procedural information). Our team then identified target audience sizes that were easily distinguishable from each other. It became evident through completing the review guide that established online communities were the best audience size to target in comparison to the other three audience sizes we identified, the public, targeted demographic groups, and high-value individuals. We identified that established online communities were the most beneficial audience size to target due to the sizeable number of independent organizations within the field of weapons transparency, as each organization has an already-established base. Next, our team identified outreach strategies based on literature reviews of each target audience size. Given the benefits of outreach strategies specific to online communities, our team established four separate strategies, including social media post collaboration, marketing as a podcast & webinar guest, social media group outreach, and hashtag usage (see Appendix J.2 for all strategies).

The interviews with Martin Butcher and members of the SCRAP team yielded both recommendations for edits to the Outreach Strategy Review Guide as well as potential outreach strategies to recommend implementing. We were unable to interview Dan Plesch, therefore we were unable to hear his opinions. Each interview comprised of a discussion of the changes to the guide and a potential recommendation for an outreach strategy specifically for increasing traffic to the GWTP website. The interviewees agreed that the GWTP website was too new to have any useable information about the past outreach strategies or the current audience. However, interviewees noted that executive members of SCRAP, specifically Dan Plesch, favour reaching out to large quantities of the targeted audience of non-technical users, while simultaneously developing high-value relationships with policymakers, academia, and journalists. Regarding potential additions to the review guide, Zahraa Kapasi remarked that the outreach review guide would benefit from adding examples of how each of the strategies would work. Furthermore, to increase the context within the review guide, Henrietta Wilson requested greater detail within the

introduction paragraph to explain the goals of the guide itself, while Martin Butcher concluded that more procedural information would help with the implementation of these strategies. Our team implemented the changes recommended by each interview for a final draft of the Outreach Strategy Review Guide, which we sent to the SCRAP Weapons team.

Conclusions

When completing the literature review for the outreach strategy review guide, we found most papers favoured interested groups, whether by an association of ideas or demographics. The research found that there were more virtual strategies to outreach to online communities. However, the SCRAP Weapons team saw value in reaching out to high-value individuals. Given how target audience sizes influence different outreach strategies, our team wrote the outreach strategy review guide in a way that first had SCRAP Weapons identify the target audience and audience size before choosing a strategy. The interviews completed with SCRAP Weapons' employees and affiliates affirmed the need to include more context in the guide, both for the overall purpose of the guide and each individual strategy. Given these recommendations, our team was able to create an in-depth outreach strategy review guide, with an introduction providing context behind the overall purpose of the guide, a procedural overview for outreach strategies, and guides to audience selection, target audience sizes, and various outreach strategies. This guide is meant to support the comprehensive goal our team has set out to complete. While the redesigned website is important to increasing the return rates of current users, it is only valuable if people initially travel to the website. By increasing the initial traffic to the website, our redesigned user interface (UI) provides clear direction and value to increase return rates, increasing overall usage of the website as well as the transparency of weapons data.

Appendix I.1: Outreach Strategy Interview Preliminary Questions

Section 1: Past outreach

1. What past outreach strategies have the SCRAP Weapons team employed?
2. What is your opinion on the current social media presence of the website?
3. How have the SCRAP Weapons team employed current events in past outreach methods?

Section 2: Regional outreach

1. Do the SCRAP Weapons team currently know the main regions accessing the website?
2. What are the current regions that the SCRAP Weapons team feel are not generating the traffic expected?

Section 3: Occupational outreach

1. Do the SCRAP Weapons team currently know the main occupations accessing the website?
2. What are the current occupations that the SCRAP Weapons team feel are not generating the traffic expected?

Appendix I.2: Outreach Strategy Review Guide

Introduction

The outreach strategy review guide's goal is to provide direction on strategies to acquire the greatest traffic to the Global Weapons Tracking Portal (GWTP) website. The outreach strategy review guide functions as a tool for increasing the traffic of people who will actively use the GWTP website on more than one occasion. It is important for The Strategic Concept for the Removal of Arms and Proliferation (SCRAP Weapons) to quickly develop outreach strategies when current events influence new audiences interested in global weapons tracking. Therefore, being able to immediately identify an audience and a detailed outreach strategy allows your team to swiftly reach out to those who could use the website repeatedly. This outreach strategy review guide is a living document, meant to change and expand as outreach strategies change in efficacy.

How to Develop a Strong Virtual Advocacy Outreach Campaign

In 2008, the Multi-State Information Sharing and Analysis Center (MS-ISAC) developed a step-by-step instruction for creating a strong outreach campaign (Multi-State Information Sharing and Analysis Center, 2008). The steps below derive from the procedure found in the MS-ISAC document. However, the MS-ISAC document is outdated and lacks guidance for virtual outreach campaigns. By condensing and updating the guide with contemporary information, overarching questions can summarize each stage within the development of an outreach campaign. Each of these steps leads to another, establishing key information which can be useful in the following development phases. The flowchart below (Figure 1) is a visual aid to better define how the questions lead to one another.

1. Determine the team's goals for this outreach campaign (Why?)
2. Find the target audience that the SCRAP Weapons team most wants to focus on (Who?)
3. Identify what target audience size best suits this campaign (What?)
4. Establish the outreach strategy best for the audience the SCRAP Weapons team is trying to reach (How?)

5. Set up a timeline so the SCRAP Weapons team hits all deadlines (When?)



Figure 1. Flowchart of major questions asked throughout an outreach campaign

How to Identify Your Target Audience

The purpose of the outreach strategy influences the audience your team selects. Starting with the public, the SCRAP Weapons team should segment your potential audience in a way that fits the best with your outreach goal. With the primary goal of current outreach being to increase traffic to the GWTP website, the SCRAP Weapons team should identify how each potential audience group could respond. The SCRAP Weapons team should categorize into three basic categories, a primary audience willing to listen, influencers who have an impact on the primary audience, and gatekeepers who will prevent access to the primary audience (US Office of Energy Efficiency & Renewable Energy, n.d.). For example, when attempting to reach out to an audience with limited technical experience, your team would want to find influencers with a technical background who can positively review the website as a strong starting point. Furthermore, your team would want to avoid any potential gatekeepers who would influence your target audience negatively.

Target Audience Sizes

The size of the audience is paramount to determining the best strategy to use. We listed the audience sizes below in order from widest target audience to the narrowest.

- **General Public**

Strategies focusing on the public cast the widest net possible. Minimal audience filtration goes into these strategies. The goal is to publish content that will get the most clicks in spaces that appear to the greatest number of people. It is important to simplify the content provided to the public, but not so much that it obscures the overall point of the outreach (Brownell et al., 2013). The simplest and most cost-effective way to reach out to the

public is to develop a social media presence that provides the widest audience on different platforms.

- **Online Community**

An online community is a network of people who interact with one another through the internet. An idea or platform defines each online community. A straightforward way to develop a new audience is by tapping into an already established audience. Examples of online communities to tap into are podcast audiences, advocacy group social media followings, and social media groups (Facebook, Reddit). Ideas central to these online communities could include nuclear disarmament, open-source research, and human rights advocacy. These major ideas have pre-established communities which will be more welcoming to SCRAP Weapons' outreach compared to random groups of individuals not connected by these ideas.

- **Targeted Demographic**

A narrowly specified audience helps create a durable base. The audience uses demographics to categorize people by looking at quantitative statistics. Psychographics split people up into categories by their qualitative differences, such as personal values and opinions (Russo, 2021). While certain communities share certain demographics and psychographics, it is unwise to assume that all members of an online community think and act the same. The SCRAP Weapons team should establish the members of the target demographic before attempting to reach out to them. Focus groups, surveys, or digital analytic software establish these targeted demographics. Targeted demographics incur the most risk, especially when reaching out to stigmatized populations. Targeting content to a certain demographic can lead to an audience feeling 'tracked' or 'watched,' which can undermine trust and increase anxiety among the targeted group (Iacucci, 2021).

- **High-Value Relationships**

These relationships are the most directed outreach targets. The outcome is like targeting a community, as a high-value target audience member has a large network of individuals they can reach out to. These high-value relationship targets can include professors of

major institutions, politicians, journalists, or executives of major corporations or organisations. Typically, organisations target less than ten high-value relationships in an outreach campaign. What provides these relationships value is the contact networks of these high-value relationship targets, which SCRAP Weapons can tap into via word-of-mouth outreach. With these methods, the SCRAP Weapons team need a high success rate. By introducing similarities to the individual, the SCRAP Weapons team are developing a relationship by allowing the high-value relationship target to take control of the conversation. In these conversations, the SCRAP Weapons team can establish the value the SCRAP Weapons team and your organisation bring to the table (Wenderoth, 2019).

To find potential high-value relationships, your team should determine what network the SCRAP Weapons team want to insert yourself into. For journalists, use the “Forum on the Arms Trade” website, where they have a page with a table including journalists who report on arms trade information (<https://www.forumarmstrade.org/journalists.html>). For potential relationships with think-tank members, research each member on the think-tank’s website, identifying a fellow with strong similarities to the work of SCRAP Weapons. Specifically, fellows within think tanks affiliated with universities – including the Belfer Center at the Harvard Kennedy School – should be primary targets for outreach. For policymakers, ensure the SCRAP Weapons team find legislators who have shown a previous interest in promoting disarmament policy. For example, current Massachusetts Senator Ed Markey has shown extensive interest in disarmament policy.

Virtual Strategies for General Public Outreach

- **Social Media Reputation Development**

Social media is the quickest way to reach out to the public. Developing a social media strategy is most beneficial for public outreach, as well as providing a foundation that may allow for future audience specification. Furthermore, most advocacy social media limit the use of private messaging in favour of public broadcasting to increase general outreach. A study by Chao Guo and Gregory Saxton established quantitative data behind the use of social media within advocacy. Within this study, Guo and Saxton found that

less than seven percent of all social media posts by advocacy groups in a study were private messages (Guo & Saxton, 2014). Furthermore, when Guo and Saxton's study split advocacy groups into three major categories, information groups, community groups, and action groups, groups which focused on providing information saw over 96 percent of their posts involve either advocacy through education or posts supporting advocacy with additional information (Guo & Saxton, 2014). To increase the number of reposts of produced information, it is important to implement two key factors in each post: emotion and a functional interaction (Zhang et al., 2022). Emotional content are social media posts which positively or negatively influence the audience's feelings. Functional interactions are interactive and increase dialogue between the organisation and the social media users. Interactive content includes content with hyperlinks, hashtags, and educational content.

- **Email & Messaging Campaigns**

Email and messaging campaigns have low response rate. Typical email campaigns to recipients with limited or no previous interaction with your content (cold communication) have less than a 10 percent response rate (Data & Marketing Association, 2021). The low response rates for cold email and messaging campaigns come from the increasing number of spam detectors within email and messaging services. Therefore, to make these campaigns justifiable, the number of recipients should be large. The public provides the largest number of potential recipients. All other audience sizes are too small for email and messaging campaigns to be advantageous. Since this strategy requires the greatest number of recipients, you need to find databases which contain a heavy number of individuals, such as universities with a large student population or large organizations.

Virtual Strategies for Outreach to an Online Community

Social Media Post Collaboration

Post collaborations allow two social media accounts to reach out to one another's audiences with a shared or collaborated post. Certain platforms like Instagram have implemented a shared post function within their application (see Figure 2). Finding the

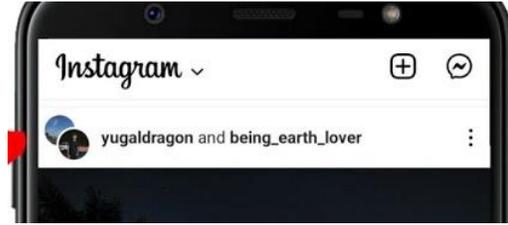


Figure 2. Instagram Post Collaboration Feature

right person or organisation to collaborate with is the hardest part of this strategy, as the SCRAP Weapons team should find an account with an online community that is likely to engage with your content. However, the account the SCRAP Weapons team want to collaborate with also needs to find value in the collaboration. Reaching out via private message is the best way to start a dialogue. It is also important to set timelines for posts to ensure the collaboration is productive and not one-sided.

An example post collaboration between SCRAP Weapons and Corruption Tracker represents an opportunity of this example in practice. Creating a post collaboration on SCRAP Weapons' Instagram account "scrapweapons" with Corruption Tracker's Instagram account "armstradect," SCRAP Weapons will have increased dialogue with Corruption Tracker's audience. Specific ideas for post collaborations regarding the GWTP website could include how Corruption Tracker has benefitted from using the GWTP website, or interesting information a Corruption Tracker employee has found through investigating different organisations through the GWTP website.

- **Podcast & Webinar Guest Marketing**

Podcasts are one of the fastest-growing media platforms. With over two million podcasts worldwide, dozens have audiences that would be interested in SCRAP Weapons' work. Podcasts have become popular due to their specific content and two-way interactions between hosts and their audience



Figure 3. Listen Notes Search Engine Homepage

through questions provided by the podcast’s audience and answered by hosts and their guests (Chang & Cevher, 2007). Many podcasts and webinars invite guest speakers to bring added content to discuss. However, before joining a podcast or webinar as a guest speaker, it is important to pitch the value of what the SCRAP Weapons team have to say to the producers of each podcast. Each podcast’s main concern with each guest is how they can keep and grow their audience base. Therefore, it is important to find a podcast whose audience will find what the SCRAP Weapons team have to say engaging.

The search engine “Listen Notes” searches for podcasts given specific keyphrases (Listen Notes, n.d.). You can search for people, places, and topics to refine potential podcasts to reach out to (see Figure 3). Think tanks such as the Center for Strategic and International Studies (CSIS) have numerous podcasts. A CSIS podcast related to the work of SCRAP Weapons and the GWTP website could include “Building the Future: Freedom, Prosperity, and Foreign Policy with Dan Runde.” Another podcast that has a similar audience profile to the GWTP website is “Arms Control Wonk.”

- **Social Media Group Outreach**

Reaching out to groups is another avenue to take advantage of an already established community. Many different social media platforms have group features that operate as a

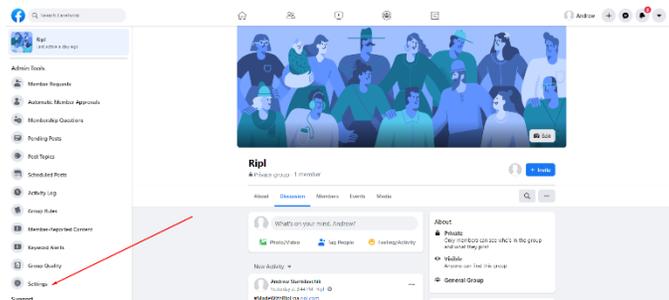


Figure 4. Facebook Group Feature

forum to share thoughts and ideas. Facebook (see Figure 3) and Reddit are the two major forum-based platforms. Typically, these groups surround an idea, not a person or organisation. Therefore, it is easier to insert your organisation into

these groups. However, many of these groups have moderators which remove any marketing content which detracts from the group’s purpose. If SCRAP Weapons oversaturates the group with outreach content, moderators may feel the need to act. Therefore, content published in these groups needs moderation, while still being

informative.

- **Hashtag Usage**

The way social media platforms recommend content to individuals is by creating algorithms that recommend posts by relevancy. The way social media platforms track relevancy is through hashtags. Each hashtag is its own online community. Therefore, finding a medium between overuse and underused hashtags is important to get a maximum number of views at your posts. Furthermore, the number of views each post with that hashtag gets can quantitatively define that hashtag's efficacy. On Twitter, the hashtag "Ukraine" has so many posts that while there is a heavy number of followers, the number of posts limits views. However, the hashtag "Ukrainearmscontrol" has limited posts, but also limited followers. The hashtag "armscontrol" has a strong following but only has one or two posts a day, meaning SCRAP Weapons will have visible posts using this hashtag.

Virtual Strategies for Outreach to a Targeted Demographic

- **Content Curation and Advertisement**

Attempting to reach out to a certain demographic requires the SCRAP Weapons team to create content that attracts that demographic specifically. Being able to research what resonates with certain demographic groups will allow the SCRAP Weapons team to develop and organize content in a way that will be more likely to attract the targeted demographic to your site. For example, when attempting to target a male demographic, most advertising companies will use entirely masculine imagery within their advertisements. However, please note that over-specification of content towards a certain demographic may cause anxiety rather than interest, stemming from the audience's fear of being 'watched' or 'tracked.'

Virtual Strategies to Establish High-Value Relationships

- **Individual Emails**

Individualizing emails to high-value target audience members is a straightforward way to develop relationships. There are three specific personalization types: individual, organisational and industry (Frauenlob, 2022). Basic introductions, referencing mutual contacts, and personal interests connect at an individual level. A connection at an organisational level is explaining what your target's organisation does. Finally, a connection at an industry level is explaining the value your target's organisation and SCRAP Weapons bring to your related industry. The SCRAP Weapons team should use all three of these individualizations in your initial email. These three individualizations will provide a strong starting point for future communications, whether in person or virtually. Personalized emails increase response rates by up to 250 percent (Frauenlob, 2022). This email should be the first communication in many different tactics the SCRAP Weapons team uses. This strategy will be less effective with individuals who have heavy email traffic, as your email will disappear within their cluttered inbox.

- **Conferences and Events**

Similar to the individualized email, conferences, and events serve as a first communication with a potential high-value relationship. However, while the SCRAP Weapons team would typically follow up an email by a meeting in-person or virtually, meeting at a conference or event can allow both introductions and in-depth conversation. Attending the same conferences as potential relationships will allow the conversation to occur naturally by discussing speakers and other content surrounding the conference or event. The best way to find a conference or event attended by your targeted audience member is by looking at their social media, specifically LinkedIn.

The SCRAP Weapons team can also find potential high-value relationships through conferences. Events chose keynote speakers based on the influence they have on a certain subject or industry (Brenner, n.d.). Therefore, these keynote speakers are optimal high-value relationships for SCRAP Weapons to have. Furthermore, conversations are easy to start with these speakers, especially if the SCRAP Weapons team can relate SCRAP

Weapons' work to their keynote speech.

- **Webinar Hosting**

A webinar with high-value guests provides the opportunity to play into their ego and their ability to take over the discussion. It is also a beneficial way to develop a rapport with them. Specifically, this increases the word-of-mouth outreach to the network which your new high-value contact holds. Rather than offering yourself as a guest speaker, the SCRAP Weapons team hosting the webinar allows your team to offer a guest speaker position yourself. Webinar registrations happen most often during the workweek, especially early in the workweek on Mondays and Tuesdays (Woodall, n.d.). It is also important to start promoting your webinar at least two weeks to a month in advance. The best way to promote webinars is through email campaigns (Woodall, n.d.). Discussion or communication webinars incur much stronger attendance levels than educational webinars, which falls in line with the goals of bringing influential guest speakers (Woodall, n.d.).

General Tips for Developing a Strong Virtual Advocacy Outreach Campaign

- **Do not just focus on one strategy**

While each of these individual strategies may be intimidating, it is important to understand that outreach strategies are not meant to stand alone. Do not just stop outreach efforts after one campaign, as it is as important to build relationships with your audience as it is to initially reach out to them.

- **Do research online**

Before starting an outreach campaign, it is important to research the audience or individual the SCRAP Weapons team are attempting to target with the selected strategy. Specifically, research the websites of organisations and the LinkedIn of individuals to understand events, projects, and other key information involving your target.

- **Know the response rates**

The larger the target audience size, the lower the response rates are. Therefore, it is helpful for the SCRAP Weapons team understand the response rates of the strategy the SCRAP Weapons team are employing, so that expectations do not exceed what is possible.

For example, cold email and messaging campaigns have less than a 10 percent response rate (Data & Marketing Association, 2021). Warm email campaigns have a 20 to 30 percent response rate. Personalized emails increase the efficacy of email campaigns by 250 percent (Frauenlob, 2022). Therefore, comparing a cold email campaign to a personalized warm email campaign is a difference of 10 percent response rate versus a 75 percent response.

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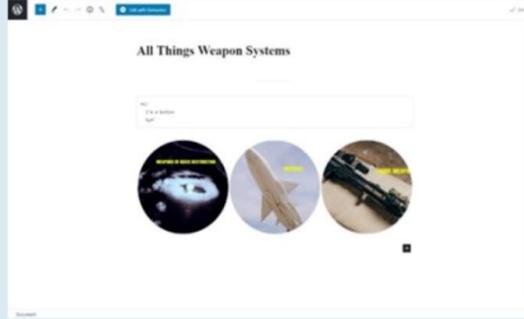
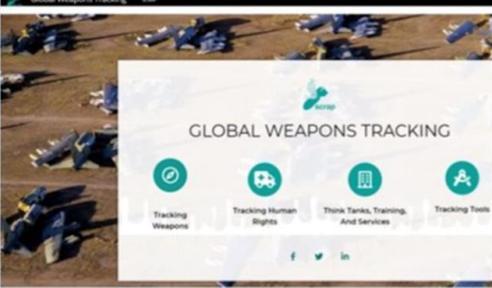
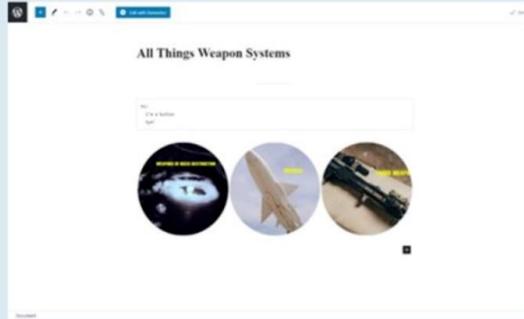
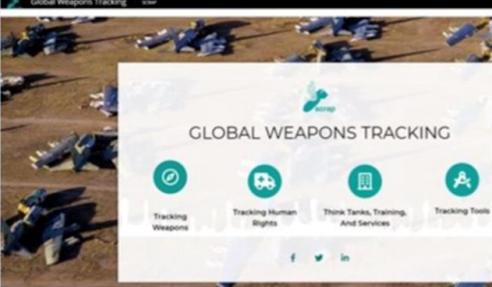
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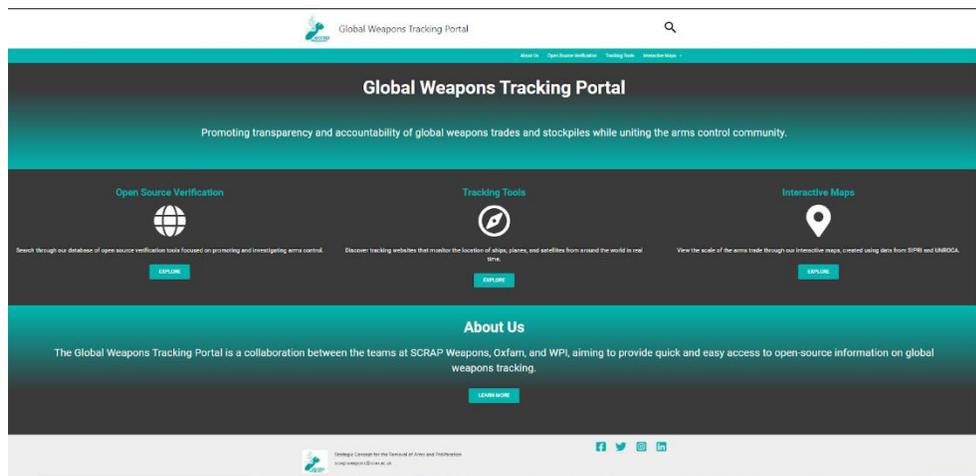
Appendix J: Global Weapons Tracking Portal (GWTP)

To access the website, please travel to <https://globalweaponstracking.com/>. Within the table below, our team has compiled the evolution of multiple pages within the GWTP, including the original design, the two previous team's designs, and the final designs within our redesign.

Page	Design Phases
<p>Home Page</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Starting Design</p>  </div> <div style="font-size: 2em;">➔</div> <div style="text-align: center;"> <p>Finalized Design</p>  </div> </div> <p style="text-align: center;">First Team Original Homepage Design</p>
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Starting Design</p>  </div> <div style="font-size: 2em;">➔</div> <div style="text-align: center;"> <p>Finalized Design</p>  </div> </div> <p style="text-align: center;">First Team Finalised Homepage Design</p>



Second Team Finalised Homepage Design



Final Homepage Design

Meet the Team/About Page



Global Weapons Tracking | SCRAP

Meet the Team

Worcester Polytechnic Institute and the Interactive Qualifying Project



Global Weapons Tracking is a product of students from Worcester Polytechnic Institute (WPI), as a part of the Interactive Qualifying Project (IQP). The IQP serves as a unique component to WPI's signature project-based curriculum in which students are given the opportunity to experience working to solve a problem that lies at the intersection of science and society. The project involves teams of students from various academic disciplines working together to benefit a community by addressing an interdisciplinary issue that links science, engineering, and technology to social science. Through WPI's Global Projects Program, students not only address the needs of their local community but also those from around the world by collaborating with sponsors globally — this website is sponsored by the

First and Second Team's Finalised Meet the Team Page Design



Global Weapons Tracking | SCRAP

About

This website is a portal to organizations tracking weapons, human rights abuses, and other threats to human security, and also connects to publicly-available monitoring tools and services. It was made by students at Worcester Polytechnic Institute in collaboration with SOAS, University of London.

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First and Second Team's Finalised About Page Design

About Us

The Global Weapons Tracking Portal (GWTP) website is a directory to organisations tracking weapons, human rights abuses, and other threats to human security. The GWTP website connects users to publicly-available monitoring tools and services. It was made by students at Worcester Polytechnic Institute in collaboration with SOAS, University of London and Oxfam.



Team 1
Izzy Subotik, Iwan Llewellyn, Julia Ormrod, Maxwell Westrich

Team 2
Jack Ansdor, Kimberly Clouting, Benjamin Landon, Viktor Mirosh, Vanessa Torres

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Interactive Qualifying Project

The Strategic Concept for Removal of Arms and Proliferation (SCRAP) is a campaign that suggests using proven agreements as a basis for general and complete disarmament (GCD). SCRAP Weapons introduces the universal control of all weapons into disarmament debates, focusing on both global controls of major conventional weapons, and the elimination of nuclear and other weapons of mass destruction.

SCRAP Weapons Homepage



SCRAP Representative:
Dan Deeth
Helenella Wilton
Zahra Kapani



Oxfam has supported disarmament projects since the Ottawa Convention in the 1990s, and most notably was a leader in the campaign for the Arms Trade Treaty. Oxfam has supported the SCRAP Weapons project since its inception, conscious that the UN aim of "General and Complete Disarmament" would make aggressive war impossible and substantially enhance the chances of meeting the Sustainable Development Goals, as well as ending the immediate civilian harm caused by major wars. Oxfam is happy to collaborate on the Global Weapons Tracking Portal as it is an important gateway to the means to track, regulate and inoperably traced arms, and to help to deal with exporting countries and the UN for stronger enforcement of the ATT and other treaties.

Final About Page Design

**Organisati
on
Lists/Open
Source
Verification
n Page**

Starting Design
➔
Finalized Design

Tracking Human Rights

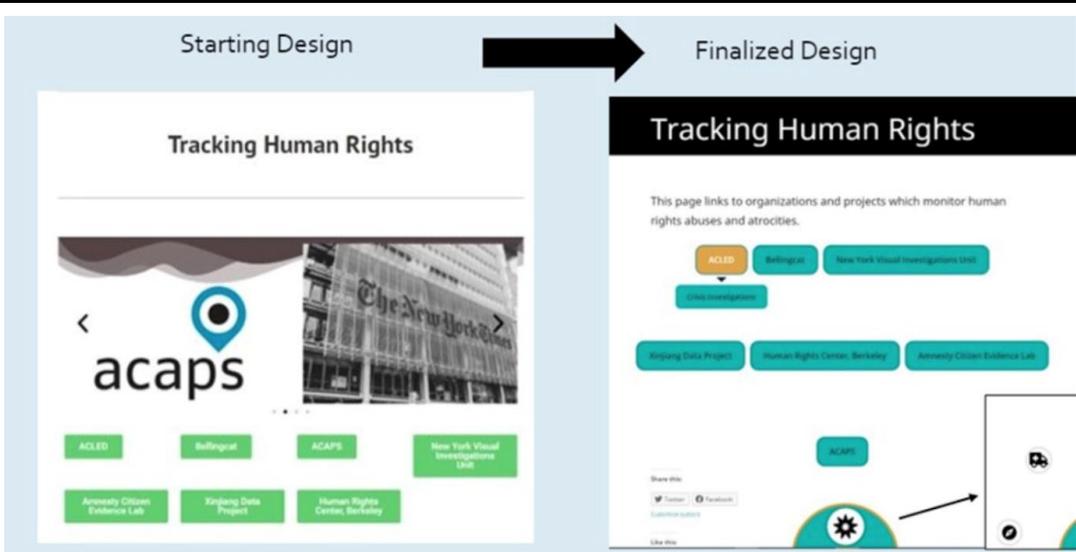


Tracking Human Rights

This page links to organizations and projects which monitor human rights abuses and atrocities.



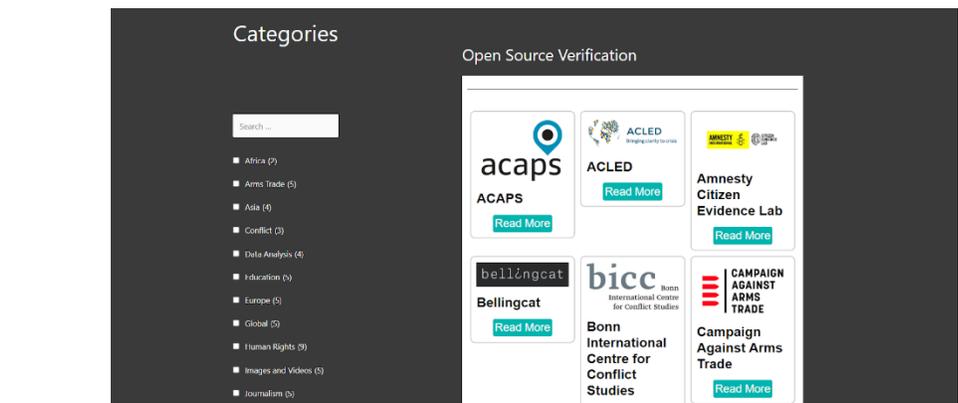
First Team Original Organisation List Page Design



First Team Finalised Organisation List Page Design

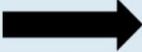


Second Team Finalised Organisation List Page Design



Final Open Source Verification Page Design

**Organisati
on Page**

Starting Design  Finalized Design

New York Times Visual Investigations Unit

Report on events happening in the news

The New York Times Visual Investigations Unit creates video investigations that focus on explaining different major events that occur. They are dedicated to discovering the truth and interpreting incidents on a wide range of topics through investigative reporting and forensic analysis.

[Link to their website](#)

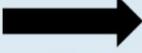
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[Link to Organization](#)

First Team Original Organisation Page Design

Starting Design  Finalized Design

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[Link to Organization](#)

First Team Finalised Organisation Page Design



ACLED
Bringing clarity to crisis

About

ACLED collects real-time data on political violence and protest events.

[Link to Organization](#)

Share this:
[Share](#)



Second Team Finalised Organisation Page Design



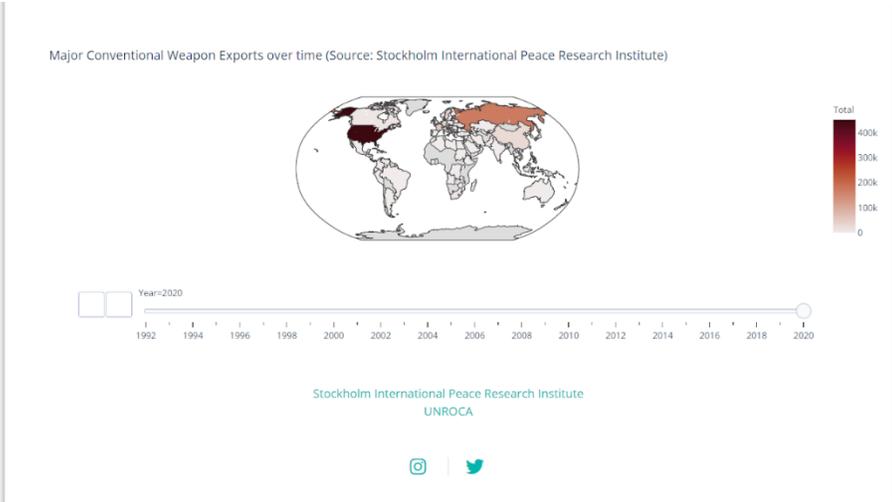
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[Visit Organisation](#)

Final Organisation Page Design

Interactive Maps Page



Second Team Finalised Interactive Maps Design

Interactive Maps



Conventional Arms Imports

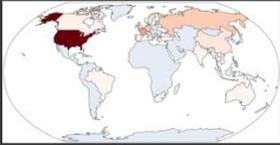
The import map was created using data from the SIPRI database. It shows the amount of weapons imported by each country by year.

[VIEW MAP](#)

Conventional Arms Exports

The export map was created using data from the SIPRI database. It shows the amount of weapons imported by each country by year.

[VIEW MAP](#)

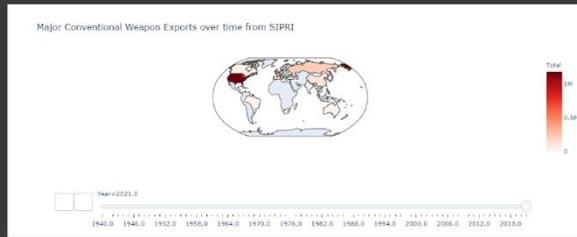


Final Interactive Maps Landing Page Design

Conventional Weapons Exports

The export map was created using data from the SIPRI database. It shows the amount of weapons imported by each country by year.

Major Conventional Weapon Exports over time from SIPRI



Use the slider to observe weapons exports from 1940 onwards, or click the play button to watch the progression of arms transfers over time. Hover over a country to observe its exports across weapon categories and its total exports for the given year.

[Explore SIPRI's Databases](#)

Final Interactive Maps Individual Page Design