

Design for Internet Shutdowns in Taiwan

Taxi Drivers, Satellites, and Tech: The Surprising Heroes in Taiwan's Fight Against Internet Shutdowns.

開源設計工作坊-捍衛台灣網路中斷英雄

開源設計工作坊-捍衛台灣網路中斷無名英雄-計程車司機、衛星和科技

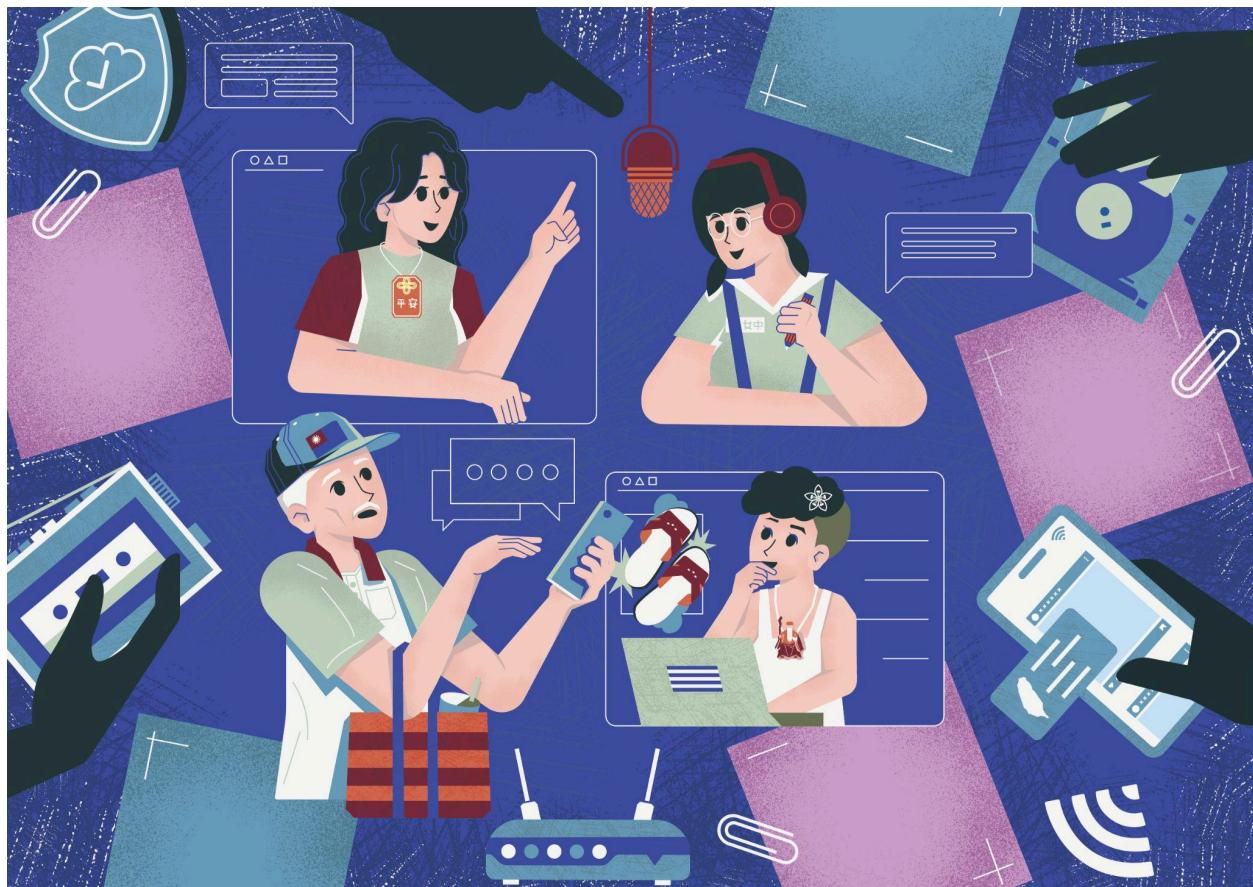


Image caption: An image of four people, smartphones, technology devices. The people are in internet browser 'frames' with speech bubbles symbolizing discussion. A person is holding a Taiwanese vegetable bag 'gaji bag' 茄芷袋 and two are wearing good luck charms.

Throughout this document you will find English written text and some sections with Mandarin translation afterwards. You are on the [English and Mandarin document](#). You can find the [English and Mandarin markdown text files here](#). You can also find the [English only document here](#) and the [English only markdown text file here](#). The [Mandarin only document here](#) and the [Mandarin only markdown text file here](#).

Why Design and designers are important for Internet Freedom OSS / 為什麼設計和設計師對於網路自由 OSS 很重要

The enthusiasm that technologists express when speaking about human rights, civic tech and privacy and security tools is admirable. They create and configure these tools, advocate for their use and their continual improvement with a passion that is frequently connected to a very real and intense life experience. Yet when you speak to the users of these tools, ordinary people, not especially technologically experienced, though experienced enough to know that they need these tools in order to stay safe, private and independent you hear the similar passion for human rights sprinkled with moderate to large amounts of frustration.

“Why can’t the privacy settings be more clear and understandable?”

“It’s so difficult to communicate to the people we train in digital privacy that to be safe, they have to switch VPN sometimes. It’s hard to communicate why”

“Well I use these tools for my journalism reporting but, honestly I still use big techs communication tools too, even though I know it’s risky they are easier to use and my family won’t switch to secure tools.”

Technologists notice these issues from their users as critical usability bugs in their technologies. Here is where designers and their design practices can mitigate problems for users and equalize the access and use of critical human rights and civic technologies. Designers seek to prioritize both expert and novice use of technology.

Designers and their practices bridge the experiences between tool developers and citizen users. It should never be a requirement to fully comprehend the technologies inner workings in order to use it to be safe. Here is the bridge designers and technologists in partnership build to bring users across, towards safe and secure existence and interaction with tech. Designers humanize the needs and purposes of technology in order to make it useful across a spectrum of global daily life experiences. Designers want to, by their very practice, include and make accessible. Designers, when given the opportunity to use design practice to do good, will do good.

Yet the barriers for designers and design practice to be normalized in Internet Freedom OSS technology are great. Design practice often registers as less vital than technological skills. Less budgeted for, less respected, less served by online collaboration platforms yet in design practice is where the interaction between the lived experience of the human meets technology and is humanized. Humanising technology and understanding these high risk, complex human rights defenders experiences is where we find the focus of the design events and hackathons like those hosted at COSCUP.

技術人員在人權、公民科技和隱私安全工具領域的熱忱令人欽佩他們開發並讓這些工具可更加完善，源自於真切而深刻的生活體驗。然而，一般用戶雖然認知到這些工具的必要性，卻常常感到無力：然而，當你與這些工具的普通用戶交談時，你會發現他們對人權同樣熱忱，卻又夾雜著不同程度的無力感。這些用戶雖不精通科技技術，但深知這些工具對保障自身安全、隱私和獨立的重要性。

- 「為何隱私設置不能更直觀？」
- 「向學員解釋為何安全需要時常切換VPN，這很困難」
- 「雖然我在寫稿中使用較具安全性的工具，但日常還是會用一般大品牌的通訊軟體，因為它們更方便，家人也不願改用安全工具。」

這些問題被技術人員視為嚴重的易用性bug。而設計師的專業正能彌補這一問題，讓重要的人權和公民科技工具更易於使用和普及。設計師致力於兼顧專業技術用戶和新手的需求。

設計師搭起了開發者和用戶間的橋樑。擁有較高的安全性不應以完全理解內部運作的技術為前提。設計師和技術專家合作，引導用戶在具安全隱私保護性下地與科技互動。他們將技術需求人性化，使之適應全世界各種日常場景。設計師的核心理念是包容性和普遍性，他們渴望通過設計實踐造福社會。

然而，設計在網路自由開源軟體領域的重要性仍未得到充分認可。與技術技能相比，設計實踐常被視為次要，獲得的資源和重視度較低。但正是在設計中，人類經驗與技術相融，實現了人性化。理解高風險、複雜的人權捍衛者的需求，正是COSCUP等設計活動和黑客松的核心。

"The team found that the workshop format was effective in bridging the gap between technical and non-technical participants, showing the power of design processes in building and improving technology" - Sugar from Team Cake



Why COSCUP is an important event for Internet Freedom OSS / 為什麼 COSCUP 是網路自由 OSS 的重要活動

COSCUP is one of the biggest and important international open source events in Taiwan. It receives a high number of participants interested not only in tech but also design which makes it a great spot for discourse from critical perspectives of people involved in building solutions for internet freedom i.e. technologists and designers. COSCUP is also very welcoming and offers flexibility in tailoring workshops and discussions around open source and internet freedom topics.

COSCUP, being held in Taiwan, also offers a neutral or rather a more positive space (geographically) with a freedom of speech and freedom of press to talk and spread ideas concerning sensitive topics such as the human rights especially those of the marginalized communities who are most in need of internet freedom tools and technologies to protect their privacy and security digitally. There are also other organizations and individuals in Taiwan working on complex issues of human rights and building civic technologies. If anything, there needs to be a greater involvement among such persons. Most countries surrounding Taiwan may not offer the same level of freedom. This makes COSCUP an important event for internet freedom OSS in South East Asia and broader parts of Asia.

The need for privacy, security and finding ways to stay connected as a community in the face of internet instability is also very real for the Taiwanese. They recognize their relationship with CCP, they understand the natural calamity can impact their infrastructure and hence believe in staying prepared. From our experience of running workshops in COSCUP, these have been key problem areas that the participants chose to design their solutions for.

COSCUP 是台灣最大且最重要的國際開源活動之一，吸引了大量不僅對技術感興趣，還對設計感興趣的參與者。這樣的參與者組成使 COSCUP 匯聚了技術人員、設計師等，提供了一個絕佳的平臺。讓他們能從不同的角度進行深入討論。此外，COSCUP 也非常友善且有彈性，以「開源」與「網路自由」為核心，來設計工作坊與研討會議程。

COSCUP 在台灣舉辦，提供了一個更中立或更積極的空間（地理位置上），在這裡享有言論自由和新聞自由，可以討論和傳播有關敏感議題的想法，如人權問題，尤其是那些最需要網路自由工具和技術來保護其數位隱私和安全的弱勢群體。台灣還有其他組織和個人在致力於解決複雜的人權問題和開發公民科技。事實上，這些人之間需要有更高度的參與與機會合作。先對於周邊國家，台灣提供了相對開放的環境，使 COSCUP 成為東南亞及更廣泛亞洲地區網路自由與開源軟體領域的指標性會議。

對於台灣人來說，深切感受到網路不穩定的影響，同時對個人隱私與安全存有高度的關注。他們清楚認知與中國共產黨的關係，並理解自然災害可能會影響其基礎設施，因此注重做好準備。根據我們在 COSCUP 舉辦工作坊的經驗，這些問題一直是許多參與者選擇設計解決方案的核心重點。

"Speculating on a 'war situation' we Taiwanese think that Taiwan would go through circumstances similar to the Russo-Ukrainian War with actual military intervention... China has already employed cognitive warfare strategy, through disinformation, military intimidation, and influence operations for many years." - Biscuit from Team Cheesecake



Image caption: A photo from COSCUP 2023 showing the poster of the event and the welcome desks.



Taiwan's relationship to internet freedom and OSS / 台灣的網路自由與開源軟體現狀

What are the threats to internet freedom in Taiwan and what do regular people and technologists think about internet freedom?

Taiwan is widely recognized for its high level of internet freedom, ranking sixth globally and first in Asia according to Freedom House's 2023 report. With an internet penetration rate of 90.7% as of January 2024, Taiwanese citizens view internet access as a fundamental right. This freedom has fostered a vibrant civic tech community that collaborates with the government to promote transparency and openness.

However, Taiwan faces unique challenges to its internet freedom. The country is on the frontline of China's "Cognitive Warfare," which includes disinformation campaigns, military intimidation, and influence operations. These threats have put pressure on Taiwan's online information ecosystem, potentially manipulating public opinion and threatening the integrity of its digital spaces.

The open source software (OSS) community in Taiwan has responded to these challenges by developing locally-focused projects. Many of these initiatives, like the fact-checking bot Cofacts, are designed to address Taiwan-specific issues and are deeply integrated into popular local platforms. While this approach effectively serves the Taiwanese context, it can make these tools difficult to replicate in other countries.

台灣的網路自由度享譽全球，在自由之家2023年報告中位列全球第六、亞洲第一。截至2024年1月，台灣網路普及率高達90.7%，全民視網路使用權為基本權利。這樣的自由環境孕育了蓬勃的公民科技社群，與政府攜手推動政策透明度和開源開放。

然而，台灣面臨獨特的挑戰。作為抵禦中國「認知戰」的最前線，台灣須應對包括假訊息傳播、軍事威脅和影響力操作等威脅。這些因素不僅衝擊台灣的網路，還可能影響公眾輿論，危及數位空間的完整性。

為應對這些挑戰，台灣開源（OSS）社群積極開發本土專案。如事實查核機器人Cofacts等項目，專門針對台灣特有問題設計，並與本地主流平台深度整合。這種方法雖然在台灣環境中有亮眼的成效，但可能難移植到其他國家。

What is the purpose of this Document?

As it would be apparent from the above sections, Superbloom conducted a workshop at COSCUP in 2023 on the topic of ‘Designing for Human Rights and Internet Freedom OSS’. This workshop brought together different kinds of contributors (developers, engineers, designers and OSS enthusiasts etc.) to utilize design practices, methods and research to explore the topic of internet shutdowns and censorship in Taiwan and how OSS technology can be used and improved from their perspectives. During the workshop, the participants developed various artifacts such as - improved personas, detailed user journey maps, discovering problems and finding solutions to prepare for internet shutdown scenarios.

The purpose of this report/output is to preserve and present all the artifacts in a structured, translated(in Chinese) and detailed manner along with design experts’ contexts. These outputs are also published on a public GitHub repository so that there’s a continuity with future workshops as opposed to being lost and forgotten. This output includes commentary on how to run similar workshops thereby enabling other design facilitators to learn and recreate them. We hope others will iterate on these resources, reference them in future workshops and build on this work.

In summary, we hope that this will:

- Enhance accessibility and understandability of the workshop artifacts
- Increase knowledge sharing and collaboration on this topic
- Empower other design practitioners
- Increase community engagement and participation
- Lead to productive solutions that benefits people in need



Image caption: A photo from the workshop. 5 people around a table with large paper, sticky notes and pens write.

Who should read this?

This report is for anyone interested in human rights and internet freedom OSS design and ideation process, but it will especially benefit the following audiences:

1. Human rights technologies and organizations: The resources will provide valuable insights and actionable solutions related to understanding and addressing internet shutdowns, benefiting organizations working in the realm of human rights and digital freedom.
2. Design practitioners and facilitators: The resources offer insights into the design process, facilitating learning and inspiration for practitioners interested in employing similar methodologies in their workshops.
3. Workshop participants and contributors: Participants who attended the original workshop and contributed to the creation of artifacts will benefit from having their work documented and made accessible in a more structured format, enabling them to revisit and build upon their ideas.
4. Future workshop facilitators and participants: The resources published on a public GitHub repository will serve as a reference and guide for future workshops, ensuring continuity and enabling iterative improvements based on past experiences.



Image caption: A photo of the main lecture hall at COSCUP's venue. Some people are setting up a camera and a light umbrella and most of the seats are full with audience members.

Workshop Methods and processes / 工作坊的方法和過程

Introduction and framing the workshop / 工作坊的介紹與框架

When beginning the workshop, there must be a welcoming and inviting feeling. Many designers have not experienced the Free and Open Source (FOSS or OSS) space or gained much experience with the Internet Freedom, Human rights technology or censorship circumvention technology space. The OSS and Human Rights technology space share many commonalities and the development and coding practices are familiar to each other, but design in both these spaces are rare. Ensure that workshop participants are welcome to bring their own thoughts, critique and experience as well as asking detailed and basic questions is welcome.

This workshop can be attended by designers, coders, developers, technologists and those interested in OSS or involved in OSS. It's also good for journalists, human rights defenders, civic technologists or people who work at NGOs or charities that are committed to a non-political/non-partisan, human rights inclusive approach. People involved in 'Big Tech', surveillance technology or who are politically aligned can also join these workshops, especially if they are openly accessible and available, but the framing of the workshop should be clearly communicated that we are prioritizing privacy, security and digital human rights globally with this work.

工作坊應以營造友善和歡迎的氛圍為首要任務。許多設計師可能對自由開源軟體（FOSS 或 OSS）、網路自由、人權科技或反審查技術等領域尚感陌生。雖然 OSS 和人權科技領域在開發和寫 code 實踐上有諸多相似之處，但這兩個領域內的設計層面的工作仍屬少見。因此，我們需要確保參與者能夠自在地分享想法、提出建議和分享經驗，同時鼓勵他們提出各種問題，無論是細微的還是基本的。

這個工作坊歡迎多元背景的參與者，包括：

1. 設計師、寫code的人、開發者和技術專家
2. 對 OSS 感興趣或已參與 OSS 的人士
3. 記者、人權捍衛者和公民科技工作者
4. 在非政治性/非黨派性、注重人權的非政府組織或慈善機構工作的人員

我們也歡迎來自科技公司、監控技術領域的從業者或具有政治傾向的人士參加，尤其是在工作坊以公開且自由參與的前提下。然而，我們會明確傳達工作坊的核心宗旨：優先考慮全球的隱私、安全和數位人權。



The Design We Open Workshop

- 網路中斷黑客松

An open design workshop for designers

Abhishek Sharma, Eriol Fox, Lindsay Hsieh and Vic Cheng



This is an open white board with slides:
<https://bit.ly/DesignatCOSCUP>

COSCUP 2023

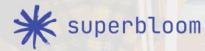


Image caption: An image of the title slide from the workshop. The text reads “The Design We Open Workshop - 網路中斷黑客松”. There is an image of a femme person with long dark hair and dark clothes and a masc person in a white shirt. The femme person has a laptop open and they are both looking towards a large screen with a computer UI displayed on it. The wall behind the screen has many orange, yellow and pink sticky notes on it.

Facilitators / 引導者

For this workshop, it is important to have some different sectors and expertise present. We recommend local design groups (e.g. IxDA, Ideo, Ladies that UX etc.), OSS designers and/or coders, developers or maintainers of those OSS projects and designers who are experts in the internet freedom, human rights and censorship circumvention technology space. Facilitation should ideally be shared between these groups and done by those who feel most comfortable and able to facilitate in an engaging and clear way towards the designers and technologists participating in the workshop.

工作坊的成功關鍵在於融合多元領域的專業知識。我們建議邀請以下專家：

1. 當地設計社群代表（如 IxDA、Ideo、Ladies that UX 等）

2. OSS 設計師和/或寫code的人
3. OSS 項目的開發者或維護者
4. 網路自由、人權和反審查技術領域的專業設計師

工作坊引導應由這些群體共同分擔，優先選擇能夠以吸引人和清晰方式帶領參與者的人。

"In the team, most people identified as engineers, one person had some design training but was not currently in a design job role. However, they ended up playing a key facilitation role between the engineer discussions and keeping the focus on the users." - Sugar from Team Cake

Open source design experts / 開源設計專家

People who work on or have contributed to OSS generally are valuable participants of this workshop. They are able to give insight and context on OSS culture, communication and expectations across a broad selection of OSS projects. They can also typically operate and use the interfaces and processes needed to contribute to OSS more quickly and effectively than those completely new to these but also can support and teach other participants at the workshop how to use OSS processes and functions e.g. how to submit an issue, how to create a branch, how to install, run and use an OSS project/tool.

OSS 領域的從業者或貢獻者是工作坊的寶貴資產。他們可以：

- 提供 OSS 項目的深入洞見和背景知識
- 分享 OSS 文化、溝通方式和社群期望
- 熟練操作 OSS 貢獻流程和工具
- 指導新手使用 OSS 流程，如提交問題、創建分支、安裝和使用 OSS 項目等

"I was curious about open-source software and found the internet shutdown scenario. This experience has reinforced my view of GitHub as a collaborative platform where developers can gain valuable insights on their projects. I have created my own OSS project since the workshop." - Pepperoni from Team Pizza



Image caption: A photo of the workshop from behind. There are many masc and femme presenting people facing towards a projector screen where the workshop facilitators are standing with a microphone. Behind the facilitators is a wall of colorful sticky notes. The room is a classroom style with white walls, gray and brown tables filled with notebooks, sticky notes, pens and laptops and there are plastic chairs.

Internet freedom tool experts / 網路自由工具專家

These can be designers, technologists or people who have worked/volunteered in the NGO, Internet Freedom, Journalism or Civic Technology space. They offer insight into the complex and nuanced challenges faced by those institutions and individuals doing human rights advocacy and work. The areas of knowledge are broad and it's best to look for people with knowledge in a specific type of human rights depending on the focus of the workshop. For example, our workshop in 2023 focussed on experiences of journalists, researchers and protestors who are at risk of being surveilled as well as targeted with online harassment and violence when they have critical information or attendance at events that may target them as human rights defenders. Along with these types of people we also focussed on when the internet is shut down or when certain information (or access to information) is censored.

這類專家可能來自非政府組織、網路自由、新聞業或公民科技領域，包括設計師、技術專家或其他相關人員。他們的價值在於：

- 深入理解人權倡導工作中的複雜挑戰
- 提供特定人權領域的專業知識
- 分享實際案例和經驗

例如，2023 年的工作坊聚焦於：

1. 記者、研究人員和社運者面臨的風險，如監視、網路騷擾和暴力

2. 網路中斷關閉和訊息審查的應對策略

這樣的專家組合能確保工作坊涵蓋理論和實踐，為參與者提供全面的學習體驗。

"I appreciated the civic and social focus of the workshop, which contrasts my day job where design must always be monetized for commercial purposes. The most educational part came from the feedback provided by the designers working in Internet Freedom and those with experiences of these complex Human Rights issues. I found it valuable to directly see how different teams approached the same topic with unique processes and solutions." - Mint from Team Mojito

Local design community experts / 本地設計社群專家

Local design expert community groups (e.g. IxDA, Ideo, Ladies that UX etc.) should be present at the workshop to act as experts in design processes and practices but also how these processes and practices are done in the country's local context. We should not assume that design processes are the same all around the globe.

建議應邀請當地設計社群（如 IxDA、Ideo、Ladies that UX 等）的專家參與工作坊，這些專家不僅熟悉設計流程和實踐，還了解這些流程在本地文化背景中的應用。我們不應假設設計流程在全世界都是一致的。



Image caption: A photo of 6 people gathered at the workshop having a discussion. One person with pink and blue hair and tattoos on their arm is speaking and the others are listening. There are femme people with long dark hair and masculine folks with short dark hair. Everyone is wearing COSCUP conference lanyards around their necks. One masc and one femme person are wearing blue t-shirts with the community logo for IxDA Taiwan - Interaction Design Association Taiwan is a community group for interaction designers in Taiwan.

Clear planning and agenda in OSS contribution / OSS 貢獻的明確規劃和議程

It's important to enable many forms of engagement in a workshop where you are aiming to investigate open source technology and make contributions. Some participants may want to work on their own machines for privacy and security reasons and also may not be comfortable connecting to insecure internet services. We also made sure that participation via writing and using sticky notes, pens and paper was prioritized. These methods often allow for better collaboration, communication and also spreads the risk of who added what detail and when, across a larger group of people. Paper, when digitized carefully can be more anonymous and also can be destroyed more completely than digital files that often leave a traceable trail when interacted with.

We also ensure that setting an agenda with objectives is clear from the beginning. Ensuring that there is the ability to be flexible within these times should participants want less or more time on certain activities and processes. There doesn't need to be very strict times for each activity but allowing for a minimum and a maximum time can help with planning the overall objectives of the workshop.

The overall objective for this iteration of the workshop were:

- Map and understand user behaviour during internet shutdowns and crisis
- Understand and explore the OSS tools ecosystem in a Taiwan context
- Ideate how OSS tools can 'fight' internet shutdowns can be designed better for Taiwanese citizens

We advise building in time to have participants that are interested in speaking out loud to the group about progress on ideas and activities that are included in an agenda plan. Sharing ideas out loud when working in smaller groups for a larger event can allow for people to be inspired by others' findings, ideas and processes which can enrich the ideas overall.

主旨旨在研究和貢獻開源技術的工作坊中，為參與者提供多元的參與方式相當重要。一些參與者可能基於隱私和安全考慮，更希望在自己的裝備上操作，並避免連接到不安全的網路連線。因此，我們將優先考慮非數位化的參與方式，如書寫、便利貼、筆和紙。這些方法不僅能促進更好的協作與溝通，還能在保護隱私的同時分散風險，避免數位足跡的留下。當需要數位化時，我們將謹慎處理紙本資料，以確保其匿名性。

我們將從一開始就明確設置議程和目標，並在時間安排上保持彈性，以便參與者就需要調整各項活動的時間。雖然每項活動不必嚴格限制時間，但設置最短和最長的時限有助於達成工作坊的整體目標。

本次工作坊的主要目標為：

1. 繪製並理解用戶在網路中斷和危機期間的行為模式。
2. 探索和理解在台灣背景下的 OSS 工具生態系統。
3. 設計出適合台灣公民應對網路中斷的 OSS 工具。

我們建議在議程中安排分享環節，讓有興趣的參與者向大家報告進展和想法。這能促進跨組的經驗交流，讓所有人從其他人的結論和觀點中汲取靈感。

Openness and safety / 開放性與安全性

Due to the sensitive nature of the subject matter of this workshop, we make sure to announce that Internet Shutdowns and Human Rights in technology is a difficult and dangerous subject and that we want participants to be safe. This means that we request participants to be careful with what they say, if they feel like it could put them at risk if shared outside this workshop. Additionally the organizers of the workshop or the participants may want to create their own threat/risk models and threat/risk analysis. This can be a simple written or verbal document that if a topic is discussed they may need to remove themselves from that subject or the entire workshop at that point or that they make sure to use an alias unconnected to their legal identity throughout the workshop. They can also opt out of topics and discussions and let others in the group know (with consent) what the impact could be to them if a certain topic was discussed.

Openness and safety

Guiding principles and openness of results and anonymisation

Internet Shutdowns and human rights in technology is a difficult and dangerous subject. We want you to be as safe as possible so we encourage being careful with speaking about what we explore today. Some of these OSS tools are used to actively allow citizens to access and share information that national governments would prefer citizens not to access and share.

We recommend not sharing contact details with each other, not disclosing any political opinions or personal details about yourself unless you are very sure you are safe and can trust the one you're sharing with.

In the absence of the OSS tool teams, the workshop facilitators will answer any user behaviour questions you might have - think of us as 'the people who have seen the user behaviour first-hand'.

COSCUP 2023 open white board with slides: <https://bit.ly/DesignatCOSCUP> superbloom

*Image caption: A screengrab of the slide used in the workshop for openness and safety. The text reads: “**Guiding principles and openness of results and anonymisation.** Internet Shutdowns and human rights in technology is a difficult and dangerous subject. We want you to be as safe as possible so we encourage being careful with speaking about what we explore today. Some of these OSS tools are used to actively allow citizens to access and share information that national governments would prefer citizens not to access and share.*

Some of the OSS tools are used to actively allow citizens to access and share information that certain institutions, organizations and governments would prefer citizens not to access and share. This is a critical topic to discuss in these kinds of workshops but OSS tools should only be accessed, tested and

used on participants' own device if they feel comfortable and not pressured to do so by the group. Alternatively, we recommend bringing test devices with OSS tools pre-loaded on these devices to be used if possible.

We recommend participants to not share insecure contact details with each other, to be careful with disclosing any political opinions or personal details about themselves unless they are very sure that they are safe and can trust the one they're sharing with.

In the absence of experts in any area, participants who feel they have enough insight into those topics can act as experts or those questions and topics can be deferred until post workshop when answers or details can be gathered.

鑑於此次工作坊涉及網路中斷和人權科技這類敏感話題，我們重視參與者的安全。我們將提醒參與者在發言時謹慎考慮，避免透露可能在工作坊外危及自身的資訊。工作坊的組織者和參與者也可以建立自己的避險套路，以便在討論到敏感話題時做出適當的應對，例如退出討論或使用與合法身份無關的別名。

一些 OSS 工具被積極用於促進公民獲取和分享某些敏感資訊，因此，在工作坊中討論這些工具時，應尊重每位參與者的舒適度。如果可能，建議攜帶預裝 OSS 工具的測試設備，以便在需要時進行使用。

為了保障安全，建議參與者避免互相分享不安全的聯繫方式，並在不確定對方可信任度的情況下謹慎透露政治觀點或個人詳細資訊。如果在某些領域缺乏專家，可以邀請熟悉相關主題的參與者暫時擔任專家角色，或者將這些問題留待工作坊後進一步探討。

Forming groups / 分組

There are many methods that can be used to help people form groups. We recommend that groups be no less than 3 people and no more than 6 when collaborating in a workshop environment on OSS and Internet freedom projects. It's good to encourage participants to spread out the various functions they can perform and insights they can give.

For example, you want to encourage a group to have a 2 / 2 / 2 ratio - 2 designers, 2 OSS technologists/developers and 2 Internet Freedom/NGO insights people. Some people can perform more than one of these roles (e.g. A designer might also work in an NGO or an OSS developer might also have experiences of protests) which is fine. As long as your groups have diverse experience, skills and insights and can communicate and collaborate respectfully, you have a good group.

We try to encourage people to meet new people in these workshops which can be effective in mixing up experiences, perspectives and allows for some skill sharing. We used the 'shopping list' method for mixing up teams - everyone in the room thought of an ingredient for their favorite food or drink. (e.g. 'cheese') and then 1 group leader is picked to say out loud the ingredients that makes their food of choice, out loud they will say 'I need pepperoni!' and if another person chose pepperoni they would join that team. The group leader then keeps saying ingredients for their food until they have 5-6 people and as many ingredients as they can to 'make' that food. The team's name then becomes their food type e.g. 'Team Pizza'.

有許多方式可以協助分組，在以開源軟體和網路自由為主題的工作坊中進行專案協作時，我們建議小組人數介於3到6人之間。推薦鼓勵參與者以他們的能發揮工作項目來提供見解。

例如，你可以鼓勵每組維持2/2/2的比例： 2名設計師、2名開源專家/開發人員和2名網路自由//非營利組織顧問。有些人可以擔任多重角色(例如，設計師也可能在非政府組織工作，或者開源軟體開發人員也可能有參與社運的經驗)，這是可以的。關鍵在於小組擁有多樣化的經驗、技能和見解，並且能夠以互相尊重的方式進行溝通與協作，就可以說是一個理想的小組。

我們試圖鼓勵人們在這些工作坊中結識新朋友，這可以有效地促進經驗、觀點的交流，並有機會讓技能共享。我們採用了"購物清單"的分組方式 - 我們讓每個人都想到他們最喜歡的食物或飲料中的一種配料。(例如「起司」)，接著挑選1位小組組長，請他大聲說出構成他們選擇的食物的配料，他們可能會說：「我需要意大利辣香腸！」如果有人選擇了意大利臘腸，他們就會加入那組。小組組長會繼續喊出食物的配料，直到他們有5-6個人，同時盡可能列舉更多配料來「製作」那道美食。最後，團隊以他們的食物命名，例如「披薩隊」。這種方法不僅能打破陌生感，還能在歡樂的氛圍中自然而然地形成多元化的小組。



Image caption: A photo from the workshop that shows the entire room. 5 groups of people are gathered at their own tables and are enthusiastically discussing the topic of 'Personas'. There is a large projector screen at the front of the classroom and tall windows on the left. There are many laptops, notebooks and sticky notes on the tables.

Tool landscape and tool demo / 工具概覽和工具演示

Participants attending the workshops or hackathons might not have in-depth expertise or knowledge about the kinds of tools, users or problems that the workshop hopes to tackle. This expertise is built up during the first half of the workshop from each person in the group sharing what they know with each other but also through the facilitation of the workshop. We kick off the contextual understanding of the workshop with some introductions, demos and explanations of the types of technologies and tools that can be used for the purposes of censorship circumvention and human rights activism. These don't need to be complete, comprehensive demos and you don't need to be an expert or a user of these tools (it helps if you know the basic functionality of the tools you speak about) but fundamentally, letting participants know what exists and what is technologically possible in the space already helps them to better understand the limitations and explorations of what they will investigate later.

參加工作坊或黑客松的參與者可能對工作坊希望運用的工具類型、用戶或議題缺乏深入的專業知識。這些專業知識會在工作坊的前半段透過兩種方式逐步建立：小組成員之間的專業交流，以及工作坊的引導過程。

我們通過介紹、演示和解釋各種可用於規避審查和支援人權社運技術和工具，來開始建立參與者對工作坊背景的理解。這些不需要是完整、全面的，你也不需要成為這些工具的專家或使用者（如果了解所談論的工具的基本功能會更有幫助），重要的是，讓參與者了解這個領域中已有哪些現有的工具及現有的技術的基礎上可能實現什麼，可以方便他們在後續的研究上可以更好的探索。

"I was curious about open-source software and found the internet shutdown scenario. This experience has reinforced my view of GitHub as a collaborative platform where developers can gain valuable insights on their projects. I have created my own OSS project since the workshop." - Pepperoni from Team Pizza



Destiny

In this workshop we covered a few different technologies, a 'magic wormhole' desktop and mobile app called Destiny (made by Least Authority) that allows users to send files using unique codes that are entered into the app to verify the receiver/sender. The file only sends and receives when both the sender and receiver have the app open on an active connection at the same time. This tool ideally means that sensitive files can be sent more privately with less traceability for people involved.

在這個工作坊中，我們介紹了幾種不同的技術。首先是一個名為 Destiny 的「魔法蟲洞」桌面和移動應用程式（由 Least Authority 開發），它允許用戶使用輸入到應用程式中的唯一代碼來發送文件，以驗證接收者/發送者。只有當發送者和接收者同時在活躍連接上打開應用程式時，文件才會發送和接收。這個工具理想情況下意味著敏感文件可以更私密地發送，參與者的可追蹤性更低。

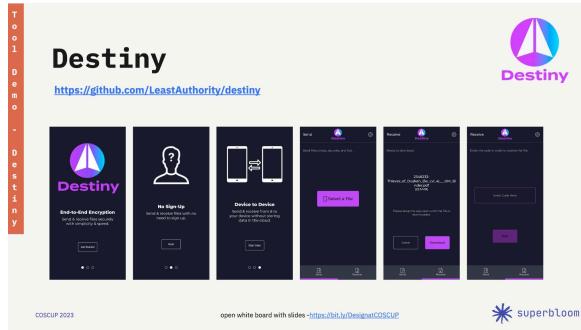


Image caption: A screengrab image of a slide from the workshop. It shows the purple and blue logo for the tool 'Destiny', a link to their github project page (<https://github.com/LeastAuthority/destiny>) and several UI screenshots from the tool showing end-to-end encryption and how devices link to each other to send files. There is a screen of Destiny that has a large button that reads 'Select a file' and the next screens progress through sending a file.

Briar

The second tool we introduced is a communication, messaging and documentation tool called Briar. Briar uses bluetooth technology in short range to connect to other nearby devices that also have Briar and have been through a verification process. This tool is useful for people that need to distribute essential information to pre-approved contacts through a communication method that is harder to 'shut down' (like Wifi and mobile internet). Briar is also able to host longer articles, written text and also multiple people conversations in a 'forum' type function.

我們介紹的第二個工具是 Briar，這是一款集通訊、訊息和文檔功能於一體的應用程式。Briar 使用短距離藍牙技術連接到附近同樣安裝了 Briar 的裝置，這些設備是都經過驗證程序的設備。對於需要向預先認證的聯絡人分發重要訊息的人來說，需要透過更難「中斷」的通訊方式（如 Wi-Fi 和移動網路）這個工具特別有用。Briar 還能夠託管長篇的文章、書面文字，並在「論壇」類型的功能中進行多人對話。

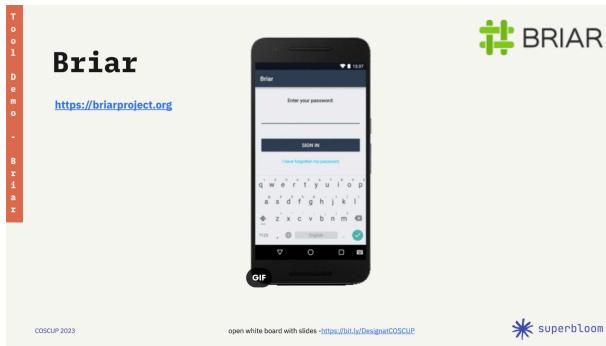


Image caption: A screengrab image of a slide from the workshop detailing the tool called 'Briar' with the project website <https://briarproject.org/> and the green logo. There is an image of a phone with an animation that cycles through the UI of Briar, including the sign in page and how a user would use messaging in Briar.

New Node

The last tool we introduced is 'New Node' which, similar to Briar, is a peer-to-peer communication tool that is harder to censor or shutdown as it connects directly to other devices with NewNode. Similar to Briar, NewNode can help people in situations where the internet is censored or shutdown make essential communications with trusted people. We also offer a 2 page document with other common tools used in internet shutdowns that participants can investigate when they get time to explore.

我們介紹的最後一個工具是「New Node」，它與 Briar 類似，是一種點對點通訊工具，但更難被審查或中斷，因為它直接連接到其他安裝了 NewNode 的裝置。與 Briar 類似，NewNode 可以協助用戶在網路被審查或中斷的情況下，與信任的人維持必要的的通訊。我們還提供了一份兩頁的文件，列舉了其他在網路中斷時常用的工具，供參與者在有時間研究。

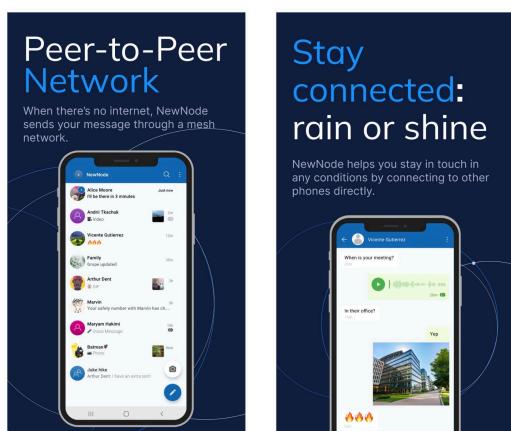


Image caption: Two images of the UI of NewNode. The images show a list of contact profile pictures in circles and the message thread previews next to them that shows the most recent message from that message history. The next UI shows a message thread with one person detailing an audio file and an image file being sent as well as fire emojis being used in chat.

Finally, the room was opened up to discuss and write down tools that participants knew of that they anticipated could be useful in internet shutdown scenarios. Even if participants are not familiar with internet shutdowns or other human rights related purposes, they begin to understand the needs and circumstances that people in these human rights situations need and what technology could be useful or fundamental in such scenarios. Participants can either call these out in the room or write their own on stickies and then place them on a common area. In addition to technology or tools it is also helpful to write what it aims to do or achieve, within the human rights context.

最後，我們開放討論，讓參與者寫下他們所知道的、預期在網路中斷狀況下可能用得到的工具。即使參與者不熟悉網路中斷或其他與人權相關的議題，他們開始理解這些在網路中斷或人權相關的情況下人們的需求和處境，以及在這些場景中哪些技術可能有用或甚至發揮關鍵作用。參與者可以在教室裡分享他們的想法，或者將它們寫在便利貼上，然後放在一個公佈欄上。除了技術或工具外，也寫下他們在推動人權議題所希望達成的具體目的和用途。

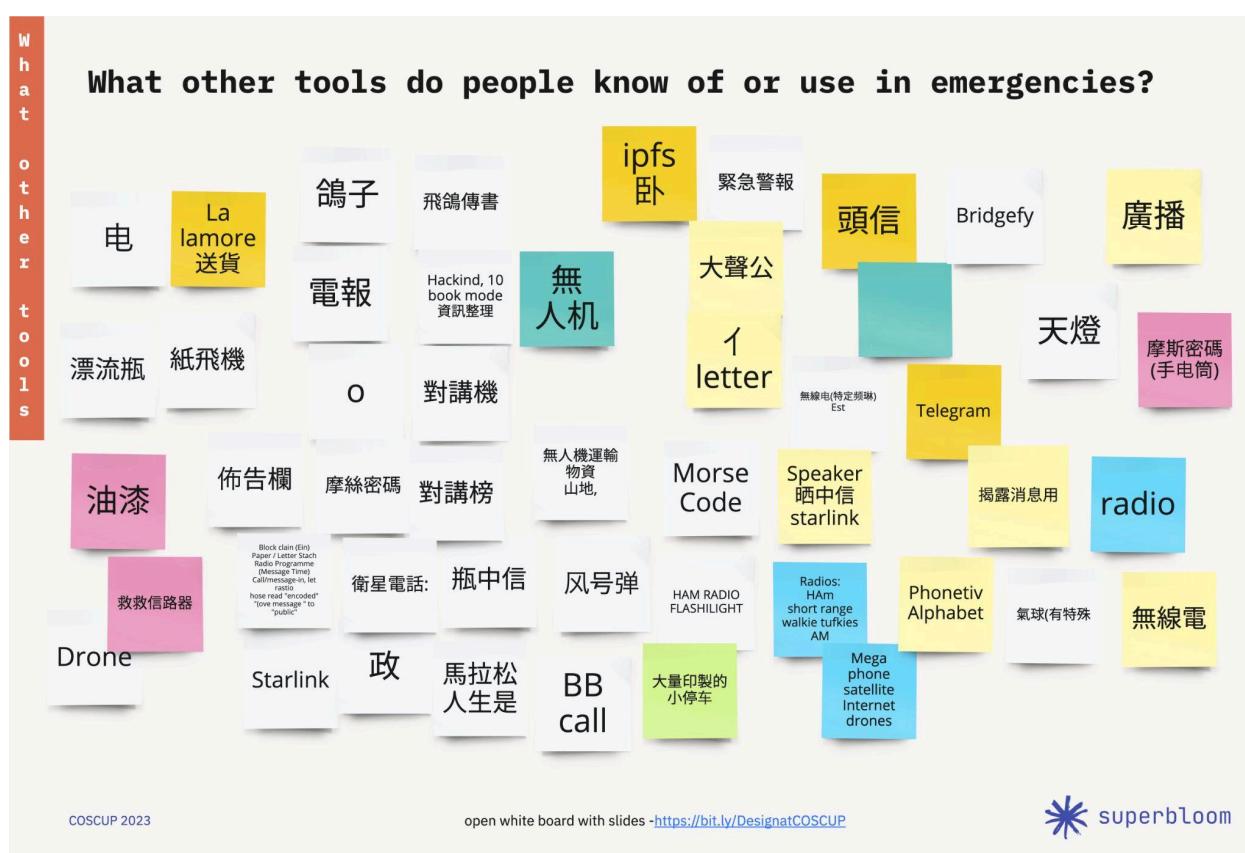


Image caption: A screengrab image of a slide from the workshop showing many virtual sticky notes with different tools that workshop participants knew about from the workshop. There is a mixture of English characters and Mandarin characters.

Why design is needed in OSS and Internet Freedom tools /

為什麼開源軟體（OSS）和網際網路自由工具需要設計

One of the main purposes of encouraging designers to participate in OSS and Internet Freedom tool workshops and hackathons is that commonly, these OSS tools and Internet Freedom technologies don't have dedicated design support or design contributions. Hence these tools lack the kind of usability, design and interfaces that regular people expect from technology. They can have difficult to use interfaces, unusual settings, difficult technical language and non-supportive help text or error text. These are just some of the ways in which OSS and Internet Freedom technology can be 'lacking' in terms of design than other commonly used proprietary and commercial technologies and tools.

We focus on showing and communicating the lack of consistent design support for these technologies to help the designers present in the workshop understand the impact they will be able to make on these tools even with limited time in a workshop. Design is an underserved function across OSS and the Internet Freedom space, though there are talented and dedicated designers in the space they can be supported immensely by designers volunteering at events like these workshops. One of the fantastic things about running workshops on these topics around the globe is that these technologies are able to gain perspective from multiple citizens and user perspectives. These OSS internet freedom tools can then be designed with many cultural and contextual scenarios which makes them more usable, relevant and useful world-wide.

鼓勵設計師參與開源軟體和網際網路自由工具的工作坊及黑客松的主要原因，是因為這些工具往往缺乏專業的設計支持與貢獻。由於缺少設計資源，這些工具在可用性、設計和介面上常常難以達到一般使用者對科技產品的期望。它們可能擁有不易操作的界面、不直觀的設定、晦澀難懂的技術語言，以及缺乏說明文字或錯誤的提醒。這些問題使得開源軟體和網際網路自由技術在設計方面，相較於商業專有技術工具存在明顯差距。

我們致力於向工作坊中的設計師展示這些技術在設計上的不足，幫助他們理解即便在工作坊的短暫時間內，他們的設計貢獻也能產生顯著影響。設計在開源軟體和網際網路自由領域是一個被忽視的環節，儘管這個領域中已經有不少才華洋溢且充滿熱情的設計師，但通過這類活動中的志願設計貢獻，可以為他們提供更多的支持。

在全世界舉辦此類主題工作坊的一大優勢在於，可以從不同國家的公民和使用者角度中獲取寶貴的見解。這些開源的網際網路自由工具因此能在設計過程中融入多元的文化和情境，使其在世界各地更具其可用性、相關性和實用性。

"Internet Freedom and OSS technology is not so easy to use. After the workshop I recognised that some technologies are trying to be implemented for the general public and reduce its relatively high technological entry barrier." - Taro from Team Hotpot

Design in OSS: Why?

Design in OSS is not new by any means! Designers and those that work on the design of OSS tools have been around since the beginning.

But they might have called themselves usability experts or maybe HCI (Human computer interaction)

Regardless of when designers in FL/OSS started, the trend and increase of interest for design in OSS in the last 5+ years is becoming clearer. Design is mentioned and has a presence across all technology tools in the proprietary or commercial world and more and more organisations and companies are getting on board with design process and designers as part of technology projects.

COSCUP 2023 open white board with slides <https://bit.ly/DesignatCOSCUP> superbloom

Image caption: A screengrab image of a slide from the workshop. The text reads: "Design in OSS: Why?. Design in OSS is not new by any means! Designers and those that work on the design of OSS tools have been around since the beginning. But they might have called themselves usability experts or maybe HCI (Human computer interaction) Regardless of when designers in FL/OSS started, the trend and increase of interest for design in OSS in the last 5+ years is becoming clearer. Design is mentioned and has a presence across all technology tools in the proprietary or commercial world and more and more organizations and companies are getting on board with the design process and designers as part of technology projects.

Image caption: A screengrab image of a slide from the workshop. The text reads: "Designers are users advocates. Designers are typically focussed on ensuring that the FLOSS's users needs are being met in the way that most works for them. This might not always be a technical answer to a problem, sometimes it's about refining, clarifying and exploring alternate pathways and 'hacks' users use. Designers are there to translate those user needs for the technology they design for. Balancing 'business wants' and stakeholder needs (among other needs and wants!) is the designer's domain.

Designers are users advocates

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Personas

Once the tool landscape has been explored, discussed and understood, the next critical component to explore are the users, their needs, threats and experiences. These are critical in order to better understand under what conditions the OSS, Internet Freedom technology will be used. These personas exercises help anyone, designer, developer or human rights activist explore these experiences and helps when making assumptions, asking questions about the users and coming up with hypotheses for use of the technology.

In order to optimize the time in the workshop, the facilitators created 3 user personas based on our own knowledge of similar situations and country contexts. These personas were intended to “spark ideas” and were there to be remixed and edited by workshop participants. This was the first activity the attendees worked on together in their groups. The personas could be read and used by the teams at the workshop as their 'key persona' to design and consider. What we found though, was that the participants in the workshop wanted to analyze and understand these personas, written by people outside Taiwan and then re-contextualise them in a Taiwanese way. Hence, some groups used a majority of a persona's information and then edited small details. Other groups completely re-wrote their own personas using information from all 3 examples and also information from their own experiences of internet shutdown situations.

These new personas ended up being vital to better understanding the needs and experiences from South East Asian perspectives including folks from Taiwan, Hong Kong and China. Personas, when used as a device to explore needs, threats and feelings, gives anyone reading them a look at people in certain countries with certain struggles and problems. This is how designers build understanding and empathy for users and can later match technological ideas, features and improvements to goals, needs and threats of personas and then, validate whether those features help solve those problems.

一旦工具已被充分探討、討論並理解後，下一個關鍵步驟是深入探索使用者-他們的需求、面臨的威脅和使用體驗。這些對於更全面地理解開源軟體和網路自由技術將在何種條件下使用至關重要。透過這些人物角色練習有助於設計師、開發者或人權貢獻者，都能更深入地探索這些使用體驗。並做出假設、引導我們詢問更關鍵的使用者問題，並為技術應用提出更有根據的假設。

為了優化工作坊的時間，主持人根據我們對類似情境和國家背景的了解，設計了 3 個代表性的使用者角色。這些角色旨在「啟發想法」，並供工作坊參與者重新組合和編輯。這是與會者在小組中一起進行的第一個活動。工作坊的小組可以將這些預設角色作為參考並以此定調他們的「主要角色」，用於進行設計和討論。

然而，我們發現工作坊的參與者希望分析和理解這些由非台灣人的角色，然後再以台灣的方式重塑角色。因此，有些小組使用了大部分原始的角色資訊，僅對細節進行微調。其他小組則完全徹底的重寫了角色，使用了所有 3 個範例的元素，以及融入了他們對網路中斷情況的經驗。

這些重新設計的角色設定，能讓我們更好地從東南亞視角來理解，使用者的需求和經驗，這是至關重要的，包括來自台灣、香港和中國人的觀點。當角色被用作挖掘使用者的需求、威脅和感受體驗的工具時，它能讓任何理解它們的人了解某些國家中具有特定困境和問題的人。對設計師而言，這是建立對使用者深刻理解和同理心的關鍵途徑。透過深入的洞察後續可以將技術理念、功

能特性和改進與角色的目標、需求和威脅相匹配，然後驗證這些功能是否有助於解決這些使用者面臨的問題。

"As a team we wanted to explore the relationship between Taiwanese citizens and local journalists. The members of this team believe there are two types of journalists. The most common journalist is someone who works to gain views. Then there's also a rarer journalist that informs the public about important social issues, and serves as a watchdog to ensure transparency and accountability while working towards societal solutions." - Biscuit from Team Cheesecake

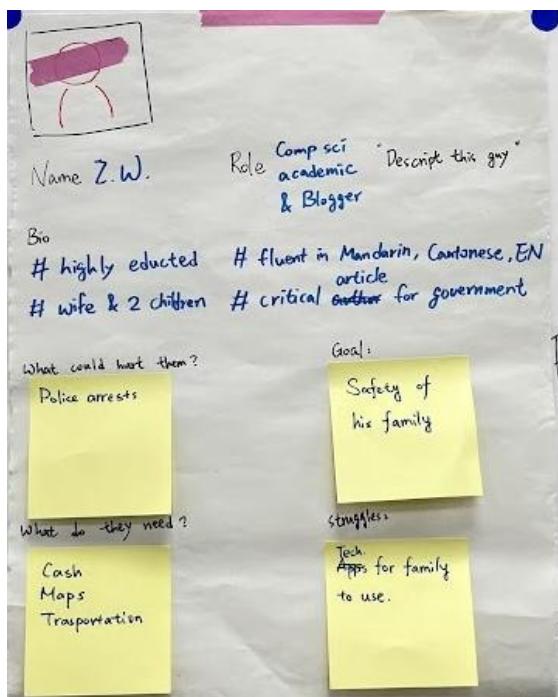


Image caption: A photo of Team Mojito's persona. There is a simple person drawing in the top left, name and then bio details including his role and other information about his needs, threats, goals and struggles.





Lara - Journalist/Activist

"I use WhatsApp, but I am looking for another app that doesn't require me to share my phone number with people I don't know"

Bio

Lara is a woman in her late twenties. She works as a journalist and is also a well-informed activist. She stays up-to-date on all current events and the latest news updates. As a result of her activism, she has been targeted by the government and other entities. She uses chat applications like WhatsApp to communicate with her colleagues and connect with sources for her reporting.

What could hurt them? <ul style="list-style-type: none">She could be arrested or imprisoned as a result of defamation.She often receives phishing links.She could have her phone seized by authorities and compromise her contacts for news stories.	Goals <ul style="list-style-type: none">Eager to take on new journalism challenges to improve who she reaches with her writing.She believes that she has nothing to hide.
What do they need <ul style="list-style-type: none">She needs to communicate securely with her contacts and sources.She wants to better understand how to safely use the applications she is already using.Is it safe to use WhatsApp?How can I encourage other people to use secure applications?	Struggles <ul style="list-style-type: none">OSS tools are hard to understandOverwhelmed by 'too many apps'Goes where the 'action' is e.g. into protests.

Notes area for your group

Image caption: An image of one user persona document. This included a face image generated by <https://this-person-does-not-exist.com/en>. The document includes sections with information written on: Bio, Job role, a quote from that persona, What could hurt them, What do they need, goals and struggles.

Name - Job role

 "A quote about the user persona about what they care about or do in relation to the topic"

Bio

Bio information which can include age, location, activities or hobbies, activism types, history, connections or family if relevant.

What could hurt them? <ul style="list-style-type: none">• Details about what could harm them•••	Goals <ul style="list-style-type: none">• This persona's goals•••
What do they need <ul style="list-style-type: none">• What questions and needs do they have•••	Struggles <ul style="list-style-type: none">• What does this person struggle with?•••

Notes area for your group

Image caption: A blank version of the user persona document. The document includes sections with information written on: Bio, Job role, a quote from that persona, What could hurt them, What do they need, goals and struggles.

Feedback from users and broader design challenges in the internet shutdowns space / 使用者回饋和網路中斷領域中更廣泛的設計挑戰

Balancing between too much and just enough research on the users, circumstances, experiences and scenarios is tough to measure for every workshop. We included anonymised data to offer deeper insight into user and OSS technology developers/maintainers pain-points and challenges. These included complaints that the OSS technologists had heard from their own user bases such as: "*This process is confusing and I don't know if I can trust the people who make the tool and who shows up as my 'friends' there*" and consistent challenges like designing technology when the likelihood of a device being 'seized' (taken by police, governments or institutions in order to be searched for any illegal or sensitive information). These prompts add more detail and context to the challenges of designing and developing internet freedom technology and allow the participants to keep in mind these needs.

在每次工作坊中，我們面臨著一個持續的挑戰：如何在有限的時間內，適度地深入研究使用者、他們所處的情境、使用體驗以及可能遇到的各種場景。我們納入了匿名數據，讓我們能夠更深入地洞察使用者以及開源軟體技術的開發者和維護者所面臨的痛點與挑戰。這些包括開源技術專家從他們自己的使用者中聽到的抱怨，比如：「這個過程令人困惑，我不知道是否可以信任開發這個工具的人，以及在那裡在平台上顯示為我的『朋友』的人」，以及一些持續存在的挑戰，例如在設備可能被「扣押」（被警察、政府機構強制沒收以搜尋任何非法或敏感資訊）。在這情況下。這些回應為設計和開發網路自由技術的挑戰增添了更多細節和背景要素，使參與者能夠時刻牢記這些需求。

"Our persona already knows how to encrypt sensitive data within images (Steganography). This creates a hidden layer of information, [REDACTED] safeguarding it from unauthorized access. She then transfers the encrypted files onto USB drives, ensuring physical possession and reducing digital tracking. The real challenge then, if getting it to the right people" - Pepperoni from Team Pizza



Image caption: A photo of a large piece of paper taped to a window. The paper has a title 'What are common UX challenges in SD (Shut Down) scenarios' and has many colorful sticky notes stuck to it in groups labeled: 'Explanations' 'TMI' 'Sync & Status' 'Discovery' 'Trust' 'Devices' 'Risk' and 'Adoption'.

Harmful or adversarial personas (personas non-grata) / 有害或對立的角色（不受歡迎的角色）

We finish off the user research and user feedback evidence section by introducing the concept of an 'Adversarial Persona' or a 'Persona non-grata'. A list of the kinds of people, users and entities that can harm our good-faith and legitimate persona users are offered up, which includes persona types like 'Prankster' (someone who wants to play jokes on other users, divert their attention, distract or disturb their legitimate use) and 'Abuser' (either a romantic partner or other kind of abuser). These Adversarial Persona are useful to consider to explore the complex needs of users. It allows designers and technologists to understand what can harm their users completing key actions and what personal or institutional harm can happen to users on their own platforms. These harmful circumstances can then be accounted for and designed better so that less or none of the Adversarial Persona behaviour can affect users.

我們通過引入「對立角色」或「不受歡迎的角色」的概念來回應以結束使用者研究和使用者回饋部分。我們提供了一份可能傷害我們的善意和合法使用者、使用者和實體類型清單，其中包括諸如「惡作劇者」（想要開玩笑、轉移其他使用者注意力、干擾或打擾他們合法使用的人）和「施虐者」（可能是戀愛關係中的伴侶或其他類型的施虐者）等角色類型。這些對立角色有助於探討使用者的複雜需求。它使設計師和技術專家能夠理解什麼可能會妨礙他們的使用者完成關鍵行動

，以及使用者在他們的平台上可能遭受什麼樣的個人或機構傷害。這樣，就可以考慮到這些潛在的有害情況，並進行更好的設計，以減少或消除對立角色行為對使用者的負面影響。

"Taiwan's status as a high-tech hub contributes to its safety. However, while Taiwan's semiconductor industry is certainly advantageous for security, the 'silicon shield' against China is only one component of the strategy. It alone is insufficient to ensure national security." - Taro from Team Hotpot

User scenarios / 使用者情境

User scenarios are an opportunity to use various personas, user feedback and design challenges that begins to tell a story of this persona's daily life, their interaction with technology and OSS tools for internet freedom purposes. These scenario statements begin to tie together details of user personas' lives and technology in a way that can lead to further exploration, isolation of a specific problem, and beginning to explore when and how technology is most and least useful.

The workshop participants are encouraged to remix and adapt these scenarios with the personas they previously chose and developed in their groups. These scenarios act as 'prompts' and ideas for the teams to consider as they build out the user and situation they want to prototype for towards the end of the workshop.

使用者情境為我們提供了一個機會來運用各式角色、用戶反饋和設計挑戰，開始描繪這些角色的日常生活、他們與科技的互動，以及如何使用開源軟體工具來實現網路自由。這些情境描述開始將用戶角色的生活細節和技術巧妙地結合在一起，以便進一步探索、分開特定問題，並開始探討技術何時最有用和最用不到。

我們鼓勵工作坊參與者根據他們先前在小組中選擇和發展的角色，來重新組合和調整這些情境。這些情境不僅僅是簡單的"提示"，更可供團隊在設計原型時充分考慮目標用戶和他們所處的實際情況。

Simulating a shutdown / 模擬網路中斷

How well can we really design and develop technology if we haven't experienced what our users have experienced?

If possible, designers and developers of any technology can find out what it's like to 'be the user'. Most people need to use the essential services and functions online that construct and run our interconnected global lives. However, there are many user experiences and scenarios that we as designers and developers may not have experienced. These are the unique 'stress cases' of users and people that do high-risk human rights and internet freedom work. We can learn more about those experiences by reading about those experiences, speaking with people with those experiences and exploring the thoughts, needs, threats and feelings of users through the exercises and activities like personas, scenarios and journeys. But, if you are able to simulate those experiences to better understand them in a safe and controlled environment then you can begin to experience the micro-decisions that people living under censorship and internet shutdowns experience too.

During this workshop, we interrupted the workshop participants to let them know that until they leave the venue that the internet has been 'shut down' and is inaccessible. Only workshop participants that need to be connected for care responsibility (like caring for the sick, elderly or children) or emergency reasons were 'allowed' to use the internet.

We asked the workshop participants to join us in experiencing what it's like when the internet is shut-down or censored. In reality, the wifi and mobile internet had not been shut-down, but we asked each of the workshop participants to place their devices into airplane mode or to turn off the wifi and mobile internet capabilities for the remaining time of the workshop.

With simulation exercises, simple or complex, you can build a more detailed understanding of how users navigate those circumstances.

如果我們沒有體驗過成為用戶的經驗，我們真的能很好地設計和開發技術嗎？

如果可能的話，任何技術設計師和開發人員能夠親身體驗「成為用戶」的感受時。大多數人使用日常構建我們互聯生活的基本線上服務和功能。然而，但設計師和開發人員往往未曾經歷過那些在高風險人權和網路自由領域工作的人所面對的獨特「壓力案例」。透過了解這些經歷、與當事人對話，並利用角色扮演、情境模擬和用戶旅程分析等方式，以及活動來探索用戶的想法、需求、威脅和感受，從而了解更多關於這些經歷的資訊。但是，如果你能夠在安全和被監控的環境中模擬這些經歷以更加地能夠感受，從而開始體驗生活在審查制度和網路中斷下的人們所經歷的微觀決策。

在這次工作坊中，我們告知參與者在活動結束前，「網路已被中斷」，無法連接。只有因照顧責任（如照顧病人、老人或兒童）或緊急原因需要連線的參與者才「允許」使用網路。

我們邀請參與者共同體驗在網路被中斷或審查時的感受。實際上，Wi-Fi 和手機熱點並未被關閉，但我們請每位參與者在剩餘的工作坊時間內，將他們的設備設定為飛行模式，或關閉 Wi-Fi 和手機熱點功能。

通過簡單或複雜的模擬練習，你可以更詳細地了解用戶如何在這些情況下導航。

"Through exploring the journeys and users, the team was able to improve their understanding of how technical solutions can address social issues. Previously the connection was harder to discover" - Sugar from Team Cake

Simulating a shutdown

1. Imagine the govt has imposed a shutdown and there's no internet connection in the room.
2. Switch off internet on your phones. Maybe even laptops.
3. This might be just a lightweight experience of an actual shutdown.
4. Try to live the scenario in the shoes of the persona you have chosen. You can let your personal experience right now guide what your persona might be going through.
5. We will run the simulation for the **duration of rest of the workshop**.

COSCUP 2023 open white board with slides <https://bit.ly/DesignatCOSCUP> superblooom

*Image caption: A screengrab image of a slide from the workshop. The text reads: **Simulating a shutdown**. 1. Imagine the government has imposed a shutdown and there's no internet connection in the room. 2. Switch off the internet on your phones. Maybe even laptops. 3. This might be just a lightweight experience of an actual shutdown. 4. Try to live the scenario in the shoes of the persona you have chosen. You can let your personal experience right now guide what your persona might be going through. 5. We will run the simulation for the duration of the rest of the workshop.*

User journeys / 用戶旅程

The user journey mapping exercise is the last of the 'exploring users' exercises in this workshop plan. It typically includes conversations about the different kinds of actions and choices that can be made during a certain event, time period or meaningful interaction. For example, some groups mapped a person who had essential gathering information during a large city wide protest and some groups mapped a journalist looking to publish a story against their media outlets views. These journeys offer us a further expanded view of our user personas, finding out what they are doing when, where and how they are achieving their actions. Furthermore, how the persona is feeling and thinking during that moment can allow us better insight into how a technology experience should be designed. e.g. if a user is anxious, what can the technology do to help manage that anxiety? If a user is feeling rushed and reckless, how can technology help them make careful and well-researched decisions with their identity and information? These are the kinds of explorations that user journey mapping allows for.

During the workshop, we encouraged participants to think about the different possibilities, and to pick the route their chosen persona would most likely and logically take when faced with a user choice. There are not necessarily any incorrect routes. All routes of a user journey map are worth mapping, so that we can discover as many uses of tools as possible. It's worth understanding when facilitating a user journey mapping exercise that there are what seems to be endless possible choices users can make, both

positive and negative. Ideally teams would have time to map out routes until they feel comfortable enough to progress with finding 'key moments' but it is also ok for user journey maps to have unfinished routes, decisions and questions about user behaviors. These can feed into later user research validation for technologies too.

用戶旅程反思練習是本工作坊計劃中「探索用戶」活動的最後一環。這一練習通常涉及討論在某特定事件、時間軸或有意義的互動中，用戶可能採取的各種行動和選擇。例如，一些小組反思了在大規模城市抗議中收集重要信息的經歷，而另一些小組則探討了記者如何報導與主流媒體觀點相左的故事。這些旅程為我們提供了更深入的用戶角色視角，幫助我們了解他們在何時、何地以及如何完成他們的行動。同時，分析用戶在這些時候的情感和思考，可以讓我們更好地設計出符合他們需求的科技體驗。例如，如果用戶感到焦慮，科技應該如何幫助他們緩解壓力？如果用戶在行動中感到匆忙或衝動，科技又該如何幫助他們在管理身份和訊息時做出更謹慎、深思熟慮的決策？這些就是用戶旅程映射所能探索的價值所在。

在我們的工作坊中，我們鼓勵參與者深入思考多種可能性，並選擇最符合所選角色邏輯的行動路線。這裡的關鍵理念是：沒有所謂的"錯誤"路線。每條路徑都具有其獨特的價值，因為它們不僅展現了工具的多樣化用途，還反映了用戶行為的複雜性。

用戶旅程映射的精華在於認識到用戶選擇的多樣性和難以預測的本質。可能出現的正面和負面結果。理想情況下，團隊應有充足時間探索各種可能的路線，直到他們能夠自如地到達到「關鍵時刻」。然而，我們也要理解，未完成的路線、尚未決定的結果，以及對用戶行為的種種疑問，都是正常且可以接受的。

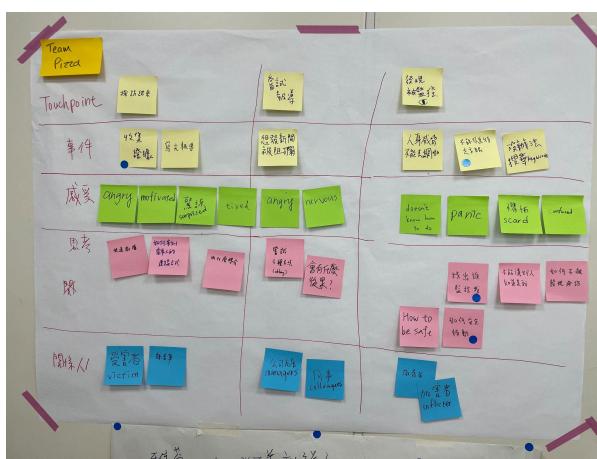
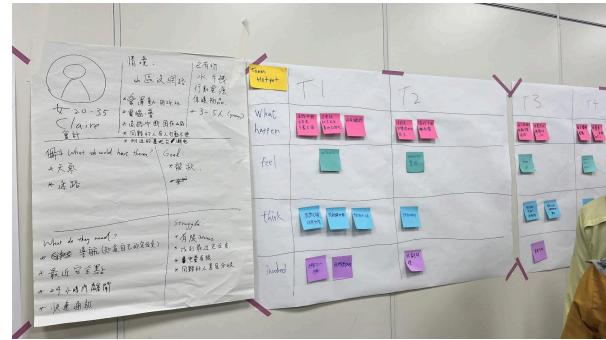


Image caption: A photo of a user journey written by 'Team Pizza' from the workshop. There are various sticky notes on a piece of large paper stuck to the wall in both English and Mandarin that describe a user's journey.

Image caption: A photo of a user persona and a user journey written by 'Team Hotpot' from the workshop. There is a basic icon drawn of a person alongside various written information in Mandarin about this persona and their journey.



Purpose: A journey map is a timeline of actions that describes the experience a subject has along a process; it focuses on the interactions between the subject and the people, objects, and environment throughout that journey.

Persona:	NAME	Goal of exercise:	Scenario:						
Touchpoints									
What happened?	touchpoint 1	touchpoint 2	touchpoint 3	touchpoint 4	touchpoint 5	touchpoint 6	touchpoint 7		
How did you feel?									
How did you think?									
What or who was involved?									

★★★★★★★★★★★★★★★★★★★★

Image caption: An image of the blank user journey template. The template includes a section at the top 'Purpose', the 'Persona' 'The goal of the exercise' and the 'Scenario' that is being user journey mapped. The template is separated into 'touch points' to describe the events of a time-period and then 'What happened?' 'How did you feel?' 'How did you think?' 'What or who was involved?'

Discovery moments in user journeys / 用戶旅程中的關鍵發現時刻

After finishing user journey maps participants can be feeling overwhelmed by information and options of the specific parts of a users experience to focus on. At this stage it's important to give teams a way to focus their attention on key moments depending on the purpose and objectives of your workshop. In this workshop, we wanted to attempt to isolate the key moments in the user journeys where technology is used or relied upon for an essential purpose where it may fall short of the expectation of the user. That single moment can then be focused on for the ideation and prototyping phase in order to not spread a team's attention too thinly and explore too many options. We're looking for a small, actionable moment where designing a change could have a big effect.

In our example, we show a user journey map created around a protest in a European country. The internet starts to slow down and communication methods that previously were accessible and safe are no longer so. When looking for key moments here we discovered that people would try to message friends and family and other key contacts when the internet connection begins to fail - when messages don't send and fail the behaviour that users often do is scrolling up in a chat history - we then had an idea that we could send critical info about shutdowns and protest information before the internet goes down to then be 'found' in the history via an eye catching design/text a sort of 'You won't need this info now but you will when the internet goes out,' proactive moment for groups sharing information.

當完成用戶旅程後，參與者往往會因為大量的資訊和用戶體驗的複雜性而感到無所適從。這時，引導團隊聚焦於工作坊的具體目標關鍵點變得尤為重要。

在我們的工作坊中，用戶旅程中那些技術應用或使用特定目的是相當重要的，尤其是無法滿足用戶期望的環節。這種方法允許我們將注意力集中在單一但至關重要的點上，為後續的構思和打造模型階段奠定基礎。我們在尋找一個小而可行的點，在那裡通過設計改變，能夠產生顯著影響。

在我們的例子中，我們展示了一個針對歐洲國家抗議活動所設計的用戶旅程圖。當網路開始變慢，以前可用且安全的通訊方法變得不再可靠。在尋找關鍵時刻時，我們發現當網路連線開始失效時，人們會試圖給朋友、家人和其他重要聯絡人發送訊息，而當訊息無法送達時，用戶經常會在聊天記錄中向上滾動。基於這一行為，我們產生了一個想法：在網路中斷之前，預先發送關於中斷和抗議的關鍵訊息，並在聊天歷史記錄中以醒目的設計或文本進行標註，這樣當網路中斷時，用戶可以在需要時輕鬆找到這些訊息。這是一個主動的時刻，提前為用戶和訊息分享提供他們在關鍵點所需的支持。

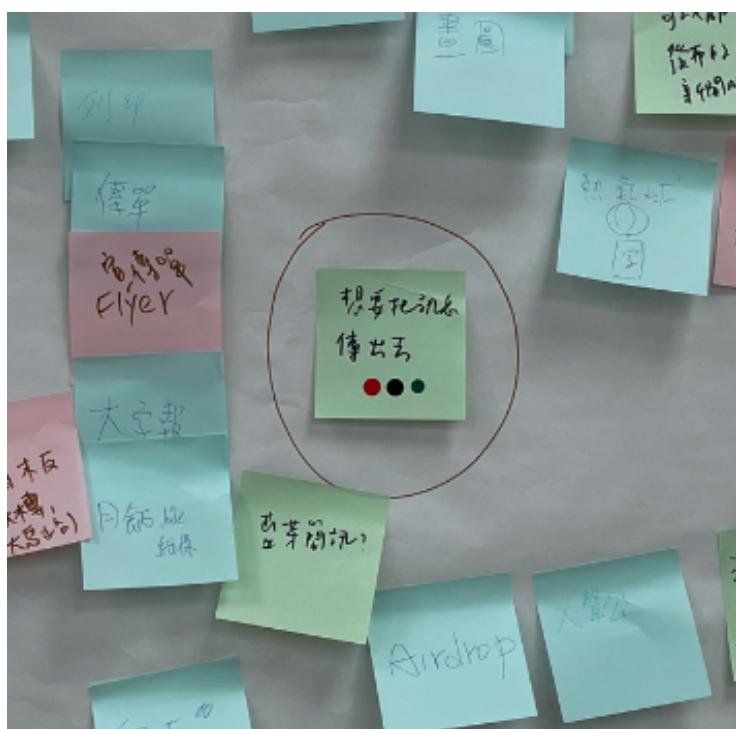


Image caption: A photo of a 'moment' in a user journey. A single sticky note that reads "Wants to get the message out" is circled in pen.

Ideate and design / 構思與設計

The last activity in this workshop on design processes is ideation. After teams have identified as many key moments in their user journey and are well-informed and ready to start generating ideas, they can start with idea generation. We ask that the groups discuss the key moments and ensure they are all happy with the moment picked and then discuss the potential ideas that solve for a specific key moment for a user. These ideas can include UI, new OSS tools and technologies, and leverage existing ones. The teams are encouraged to explore more 'blue sky' thinking and less about the detailed technical feasibility and implementation. The main objective here is to explore the solutions while continually referring back to the user journeys, user scenarios and user personas to ensure that the solutions meet the needs of the users.

Participants should however, be advised to stay within the realms of technological possibility and not go into science fiction technology. The tool landscape and demos serve the purpose for grounding the reality of the technological space. During ideation teams should have a 'storyboard' layout for their idea that they think, when looking back at the user insight, solves their problems. These storyboards often communicate both the human action and the technology/device action in them. The critical element that this workshop has brought is the lived experiences of the citizens participating in the workshop.

在這次以設計流程為主題的工作坊中，最後一項活動是構思。在團隊辨識了用戶旅程中的關鍵點，並對其有充分了解後，他們就可以開始進行想法的生成。我們鼓勵小組討論這些關鍵點，並確保對所選的重點達成共識，再針對用戶的特定關鍵點探索潛在解決方案。這些想法可以包括用戶介面、新的開源工具和技術，或是對現有技術的靈活運用。團隊被鼓勵採用更多「自由發想」，不必過於拘泥於技術細節或實施的可行性。這項活動的核心目標是，不斷參照用戶旅程、情境和用戶角色的同時，探索能夠滿足用戶需求的解決方案。

然而，參與者應被提醒要保持在技術可行性的範疇內，不要超出現實進入科幻技術的領域。工具範疇和展示的目的是將思考範圍落實在現有的技術空間中。在構思階段，團隊應為他們的想法設計「分鏡腳本」，從用戶洞察的角度出發，解決他們面臨的問題。這些分鏡腳本通常同時表達了人類行為和技術／設備行為之間的互動。這次工作坊的一個關鍵要素是參與者所帶來的真實生活經驗。

"Our team had the goal in mind first, then worked backwards through the user journey. The goal of the journalist is to deliver necessary information to the public in the midst of a communication shutdown." - Biscuit from Team Cheesecake

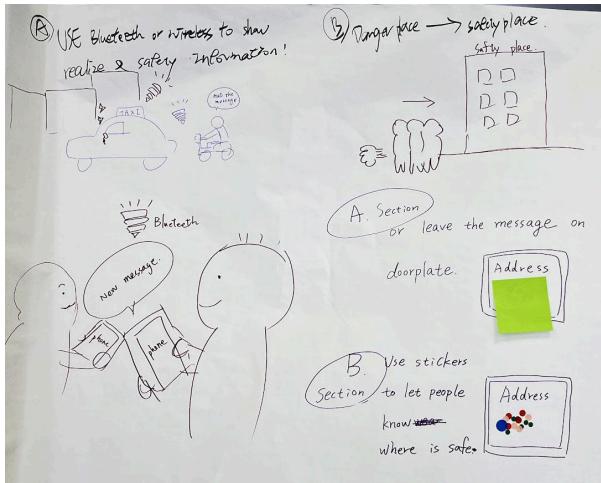


Image caption: A solution prototype from Team Japanese Curry that shows simple illustrations of a taxi driver couriering information and people to a safe place from a dangerous place and receiving messages via the taxi communications.



Image caption: A solution prototype from Team Hotpot that shows a series of mobile app screens where a user can ping a remote location that will find a connection when it can as well as logging any injuries or details on group members.

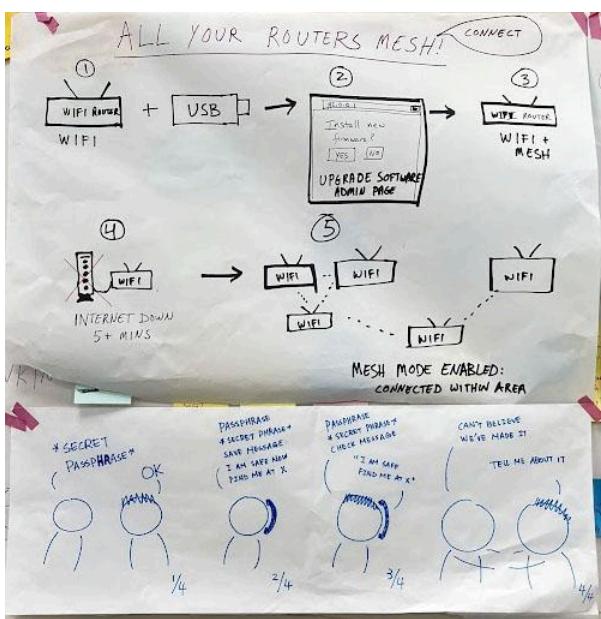


Image caption: A solution prototype from Team Mojito that shows illustrations of using a USB and wifi (before a shutdown) to record data and information about critical news events or organising details. This USB then asks users to install an app to view a sandbox in order to view the information. To get the USB this would be passed between people using a passphrase.

Documentation / 文件紀錄

Finally, at the end of the workshop after everyone has had a chance to talk about their proposed solutions to their user journey key moments, we encourage the participants to document the ideas and conversations on a platform of their choice. If the host event has documentation platforms they'd like you to use or if the participants have their own platforms they'd like to use then those platforms should take priority. Documentation is communicated as an important exercise to designers and human rights activists that are not familiar with OSS practices. Documentation that is privacy respecting while being as open as possible is how this work and these ideas live on past the workshop day.

The outcomes of these kinds of workshops are far-reaching for OSS for internet freedom and human rights. There's plenty that can be learned from participants who have their own lived experience and relationships to the subject matter.

最後，在工作坊結束時，在每個人都有機會分享他們針對用戶旅程關鍵點提出的解決方案後，我們鼓勵參與者在他們選擇的平台上記錄這些想法和對話。如果主辦活動有指定的文件記錄平台，或是參與者有偏好的平台，則應優先使用這些平台。文件紀錄對於不熟悉開源軟體的設計師和人權活動人士來說，是一個非常重要的過程。文件紀錄應該在尊重隱私的前提下，公開分享工作坊成果，以確保這些工作和想法在工作坊結束後能夠持續發揮影響力。

這類工作坊的成果對於推動開源軟體在網路自由及人權領域的發展具有深遠影響。我們能與從參與者的真實經歷及其與相關議題的連結中獲得寶貴的見解。

Wrap up and Documentation

Congrats! we spent some great time exploring a really difficult subject.

A lot of these tools are very complex if you don't know them in detail. The most important part of this workshop was engaging with the topic **'What if the internet was not available in a critical moment for these users?' and explore their journeys** which we did :)

You're **work and insight** can now be used to improve many tools during internet shutdowns and crises for these users.

We'd like each group to spend **a few minutes** describing their persona, journey map and what they **discussed and ideas** they came up with - We'll be documenting them in the **HackMD notes** document and you can also add details too!

https://hackmd.io/5W_Uf4j3Q_O7IRNx9xPEQ

We'll later move these Ideas to Github in an anonymous way.

COSCUP 2023 open white board with slides: <https://bit.ly/DesignatCOSCUP>

 superbloom

*Image caption: A screengrab image of a slide from the workshop. The text reads: **Wrap up and Documentation** An important part of this workshop was engaging with the topic '**What if the internet was not available in a critical moment for these users?**' and **explore their journeys**. Your **work and insight can now be used to improve tools** during internet shutdowns and crises. We'd like each group to speak about **their persona, journey map and ideas** they came up with - We'll be documenting them in the **HackMD notes** and you can also add details. We'll move these ideas to Github anonymously.*

Running a workshop for designers and technologists on OSS Internet Freedom technology

If you find yourself inspired to run a workshop for designers, OSS maintainers, technologists and Internet Freedom activists after reading this we have resources available in an Open Github repository: <https://github.com/sprblm/The-Design-We-Open/tree/main>. You can also find an [open virtual whiteboard https://bit.ly/DesignatCOSCUP](#) (We use [Miro.com](#) for our workshop plans and resources). We make sure to build workshop content that is inclusive of people new to design processes in open source. The intersection of design, open source software and internet freedom technology is small but growing and we make content that is accessible and helps grow understanding of each other.

We encourage you to use whatever resources and structures work for you and your communities. If you'd like support or advice on how to plan and run a workshop then you can contact us on the following email hi@superbloom.design. Superbloom staff have planned and facilitated design and OSS contribution workshops internationally and are particularly interested in how we bring more designers and design practices into the open source software community and the internet freedom and human rights technology space.



Image caption: A photo from the workshop. In a classroom setting, Superbloom staff respond to a team's ideas in an entire workshop discussion section. There were many people sitting in chairs or standing and listening.



Workshop team solutions and designer analysis / 車間團隊解決方案及設計師分析

This next chapter covers each team's process and contributions to the workshop, along with insight from the designers at Superbloom who have knowledge in design, Internet Freedom technology and Open Source Software.

下一章將介紹每個團隊的流程和對研討會的貢獻，以及具有設計、網路自由技術和開源軟體知識的 Superbloom 設計師的見解。



Team Mojito Overview



A. Scenario:

A Chinese computer engineer and civic journalist, whose investigative paper has drawn government scrutiny, faces imminent arrest. He must escape to another country to ensure his safety and that of his family.

情境：一位中國電腦工程師兼公民記者，因其調查報告引起政府關注，面臨即將被逮捕的危險。他必須逃往另一個國家以確保自己和家人的安全。

B. Persona:

An academic user persona - Computer Engineer and Civic Journalist. Team Mojito chose this persona because they read about a similar case in the news. The familiarity helped them relate to the person's situation better.

角色：一位電腦工程師兼公民記者。Mojito團隊選擇這個角色是因為他們在新聞中讀到過類似的案例。這種熟悉感幫助他們更好地理解這個人的處境。

C. Context:

The journalist's paper exposed sensitive government information which has caused protests and unrest. He must try to escape the country safely, securing travel documents, and arranging safe passage for himself and his loved ones. Since he cannot use regular and common means of transport, he needs to find a way to cross the border via land. Through his journey he is unable to access the internet and must be cautious to maintain privacy, keep his whereabouts and identity hidden.

背景：這位記者的報告揭露了敏感的政府資訊，引發了抗議和動亂。他必須試圖安全地逃離國家，獲取旅行證件，並為自己和親人安排安全通道。由於他不能使用常規和一般的交通方式，他需要找到一種通過陸路越境的方法。在他的逃亡中，他無法使用網路，必須謹慎行事以保持隱私，隱藏自己的行蹤和身份。

D. Goal:

To escape and secure a safe and discreet exit from the country for himself and his family.

目標：為自己和家人逃離並確保安全和謹慎地離開出境。

E. Solution finding:

The team explored and evaluated the need for multiple tech solutions to bring this persona to succeed. He would need a method to communicate with his trusted sources and contacts. He would need some safe houses or checkpoints to break his journey. And he would need to be out of sight of authorities and the army.

Since this case is not a common occurrence, building specific technologies for this persona may not be feasible, hence he needs to use already existing tools, technologies and methods to plan his escape. As a result of the user journey mapping and brainstorming, the team Mojito came up with the following ideas:

Offline connectivity in Taiwan: Establish a local network using devices connected via a Wi-Fi router. When the internet is cut off, the network automatically switches to mesh mode, enabling continued communication and connectivity among devices.

Escape documentation and safety navigation: In an escape situation, use a hiking app in offline mode that has radar functionality. This app allows users to request updates from others about safe locations verified by NGOs(more neutral entities), helping navigate to secure areas.

Virtual message box system: Use a secure virtual message box where both parties agree on a long code. To communicate, each person places a message in the box, which can only be accessed and read by entering the agreed code.

While these are all great ways to think about the solution, this needs further development in terms of how to stay connected in remote areas i.e. how does the mesh network enable connectivity when there are lesser devices available in the region. The solution also raised questions about who the team considered to be the ideal authority to ensure the security of the messages? Responses from the team members varied, while some suggested politicians they trust, others recommended NGOs for their credibility.

We were curious about what types of information might be the most sensitive. Mint noted that in a scenario of government repression, individuals employed by the government would likely be the primary targets. The focus is not on the specific information being monitored but on how certain professions naturally increase the risk of being targeted.

解決方案：團隊評估了多種技術解決方案，這位逃亡者需要一種與安全訊息通信的方法。他需要一些安全的地點或躲避所來作為逃亡的過濱站。他還需要避開當局和線民的視線。由於這種情況並不常見，為這個角色建立特定的科技技術可能不太可行，因此他需要使用已有的工具、技術和方法來計劃逃跑。通過使用者旅程和腦力激盪，Mojito團隊提出了以下想法。

台灣的網路中斷連線：建立一個使用通過Wi-Fi連接器連接設備的本地網絡。當網路被切斷時，網路自動切換到網狀模式，使設備之間能夠繼續通訊和連線。

逃亡文件和安全導航：在逃亡情況下，使用具有雷達功能的離線模式的登山應用程式。這個應用程式允許用戶或其他人向由非政府組織（更中立的機構）發射出關於安全位置的更新的驗證訊息，幫助導航到安全區域。

虛擬留言系統機：使用一個安全的虛擬留言機，雙方同意一個長的代碼。為了通訊，每個人在機器裡放一則訊息，只有輸入約定的代碼才能進入和看訊息。

雖然這些都是思考解決方案的好方法，但在偏遠地區如何保持連接方面還需要進一步的研究，即當該地區可用設備較少時，網狀網絡如何實際連線。該解決方案還引發了關於團隊認為誰是確保訊息安全的理想官方的問題。團隊成員的回答不盡相同，有些人建議他們信任的政治家，其他人則推薦非盈利組織，因為它們更可信。

我們好奇什麼類型的信息可能是最敏感的。Mint指出，在政府鎮壓的情況下，幫政府工作的人可能是主要目標。重點不在於被監控的具體訊息，而在於某些職業自然會增加被針對的風險。



Team Hotpot Overview



A. Scenario:

This team was focused on emergency communication tools in disaster scenarios where the internet is failing due to environmental destruction or heavy weather conditions. This scenario was chosen as it is a common occurrence in Taiwan due to the prevalence of Typhoons, landslides and other weather related crises as well as mountain climbing being a common activity.

情境：這個團隊專注於在因環境破壞或惡劣天氣導致網路中斷的災難情況下的緊急通訊工具。選擇這個場景是因為在台灣，由於颱風、土石流和其他天氣相關危機頻繁發生，以及登山活動的普及，這是種很常見的情況。

B. User persona:

The persona they focused on was a professional adult, climbing hobbyist who, until this disaster scenario, had not thought or prepared for a lack of communication. In this exploration the general critical user type is explored, the unprepared, regular citizen who by circumstance has been 'pushed' into communication cut off and is struggling with what to do.

角色：他們聚焦的角色是一位專業成年人，爬山愛好者，在這個災難情境發生之前，從未考慮或準備過通訊中斷的情況。在這次討論中，我們討論了一般的關鍵使用者類型，在發展使用者旅程的過程中，討論的一般關鍵用戶是未做準備的普通民眾，他們因環境而被「推進」通訊中斷的情況，並在對外聯繫上遇到困難。

C. Context:

The team members found that this was a user persona as well as a scenario where they could explore the topics of restricted communication, harm to people around them and decision making around what to communicate, when and to what best effect for more than one person. The topic of war-like or an international or national 'internet shutdown' was discussed in this team, but the safer option that explored similar themes was the natural disaster scenario and allowed the team to speak freely, unburdened by sensitive politics.

背景：團隊成員發現這不僅是一個使用者角色，也是一個可以探索受限通訊、周圍人員受傷以及決策如何、何時、以何種方式最有效地為多人聯繫通訊的情境。團隊討論了戰爭般或國際性/全國性「網路中斷」的話題的可能性，但更安全的選擇是探討類似主題的自然天災的情境，這讓團隊能夠自由發言，不受敏感政治話題的束縛。

D. Goal:

To use available technology when in a remote/rural location with limited internet connectivity, to contact or 'send a signal' (primarily location data) in order to coordinate rescue and/or sending new location information to those without connectivity.

目標：在偏遠/鄉下地區網路連接有限的情況下，利用可用的技術聯繫或「發送信號」（主要是位置數據），以協調救援和/或向無連線的人發送新的位置的訊息。

E. **Solution finding:**

The team discussed the use of hiking apps, Bluetooth, mesh networks and a known tool called [Sigfox](#) for maintaining connectivity in remote, mountain areas and also for potential urban, city settings. It isn't common for teams exploring design ideas to come with an established idea of what technology to use as part of the scenario solution, these technologies were often brought into the team discussions by those who self-described as engineers or coders. In itself, mentioning or suggesting technologies doesn't 'pollute' the design exploration at large, as the users, journeys and needs for technology solutions are still maintained in the process, but early suggestions can affect and bias the decisions the teams make. Here though, the purpose of mentioning this tech was that it was being investigated in the local tech communities in Taiwan. The ideal scenario for the teams solution was that, through a combination of a 'back-up weak connection (either via bluetooth mesh or Sigfox) that a hiking mobile app (possibly connected to LINE, with information inputted in offline) could 'ping' a location of the climbers in order to either then receive or send a 'packet' of information of their location and status.

This led the team to discuss the importance of localizing technology to fit specific user interface expectations and needs, such as integrating with popular apps like Line, and chat functions in Taiwan. The team considers the challenges of privacy and trust in government-created technology, and the role of citizen awareness and localized solutions in ensuring the effectiveness of these tools. The trust in government administered and maintained technologies relied heavily on what government department undertook that responsibility, given that some departments were trusted more than others. Examples of this shaky trust surfaced in conversations about potential overseas surveillance cameras being bought from a Chinese owned manufacturing company as well as the digital Taiwanese citizenship cards that were resisted against.

The biggest discovery this team made as they developed their persona was around the importance of accessible and well designed training and usable technology for regular citizens. Citing that most tools that facilitate communication not using the standard internet are difficult, confusing and require a considered training approach for regular citizens.

解決方案：團隊討論了使用登山程式、藍牙、無線Mesh網路,以及一種名為Sigfox 0G (Zero-G) technology 的已知工具,以在偏遠山區和可能的城市環境中保持連接。團隊通常不會預先有使用特定技術作為解決方案的想法,這些偏技術的解決方案通常是由工程師背景的成員在團隊討論中提出的。單純提及或建議技術某個特定技術本身並不會「玷污」整體的探索過程,其使用者旅程、設計思考和對技術解決方案仍然保持在過程中,但早期的建議可能會影響並對結果有所偏頗。在這裡,提到這些技術的目的是因為它們正在台灣當地的科技社群中被研究。團隊解決方案的理想情況是,通過結合網路連線較弱的通訊方式(通過藍

牙網狀網路或Sigfox),登山手機應用程式(可能與LINE連接,離線輸入資訊)可以「ping」登山者的位置,以便接收或發送他們的位置和狀態的「資訊包」)。

這讓團隊衍伸出了重要的討論,將技術在地化以因應本地人對用戶界面的特定期望和需求。例如在台灣整合普遍的應用程式如Line的聊天功能。團隊討論了政府開發的App中在面對隱私安全方面的挑戰,以及民眾對政府開發的App的認識和介面的在地化,都需要被解決以確保這些在工具在操作上的實用性。取決於哪個政黨執政會影響對政府開發的App的信任度,因為有些政黨比其他政黨更受信任。這種不穩定的信任在從中國製造公司購買監控攝影機,以及遭到抵制的台灣數位身份證的討論中可見一般。隨著團隊發展他們的persona,他們最大的心得是為一般民眾打造使用者友善設計介面的重要性。他們指出,大多數政府開發的App都很難使用,還需要訓練民眾如何使用。

"Generally Taiwanese citizens trust government-issued apps. Taiwan's V-Watch during the COVID-19 pandemic was an example. It integrated with the popular messaging app LINE, to collect vaccination data and connect the government with the local population. In emergency response situations, trust between the Taiwanese government and the public remains relatively high. However, on the topic of surveillance technology, the team were concerned with who manufactures it. If it's made in China, there is a risk that these cameras could be used for surveillance." - Taro from Team Hotpot



Team Cake Overview



A. Scenario:

There's been a protest that the government is attempting to stop.

情境：政府正試圖阻止一場示威遊行

B. Persona:

Journalist/Citizen journalism

角色：記者/公民記者

C. Context:

This team focused on events similar to the Umbrella Movement. At the beginning of the protest scenario, our journalist/citizen journalist arrives at the scene, ready to report on the unfolding events. The atmosphere is tense as demonstrators gather, with the government threatening to shut down internet access to quell the protest. As our protagonist prepares to document the situation, they're suddenly faced with a communication blackout as the internet goes out. They need to be able to collect and share information without being tracked.

背景：團隊專注於類似雨傘運動的事件。在示威遊行開始時，我們的記者/公民記者抵達現場，準備報導正在發生的事件。當示威者聚集時，氣氛十分緊張，政府威脅要切斷網路以阻止示威遊行。當我們的主角準備記錄情況時，他們突然面臨通訊中斷，因為網路被切斷了。他們需要能夠在不被發現的情況下收集和分享信息。

D. Goal:

Successfully communicate with each other to gather for protest in the midst of internet shutdown. The journalist needs to be able to collect accurate information and inform as many people as possible.

目標：在網路中斷的情況下成功的溝通，以集結抗議。他們需要能夠收集準確的信息並傳送盡可能更多的消息給其他人。

E. Solution finding:

Team started their design journey by picking a protest scenario first, followed by selecting the journalist/citizen journalist persona. In the middle of the chaos of protest, our journalist must quickly adapt to this new challenge. They realize the critical need to share vital information such as media files, contacts, messages along with information about protest meeting locations and police movements, but traditional communication channels are no longer available. This is where they begin to explore alternative methods of information sharing, tapping into technologies like FireChat, NFC, Bluetooth, and fingerprint authentication. NFC and bluetooth

are tech developments that a person naturally gravitates towards when considering no internet scenarios. But also the team structure had more engineers over designers which also indicates why the solution is tech-first. A vital moment in the journey of the user when they need to use this solution the most is when the police arrive to break apart the protest and people need to find a way to evade them so they share information such as the police location, safe protest places or any other information in their phone etc... Therefore, this team considered a solution where they could bump their phone against another person thereby transferring a packet of information. While it is an interesting idea because of the ease of use in a crowded setting and ensuring they send the information to the specific trusted person, it still raises questions about what if the phone is bumped into the wrong person in a chaotic setting or concerns of ensuring that there's no spread of misinformation. This led to discussions about finding the right, trusted authority who would be the source of the information. The journalist works with fellow protesters to establish a decentralized network, allowing them to pass verified information securely without relying on internet connectivity.

In a different line of thought to make their solution reach more people, the team would have preferred if there was a way to use existing lines of communication such as the Line app itself for such a scenario and purpose. If Line app could introduce offline capabilities, that would make it easier because people are already used to the app.

During solutions thinking it is often easy to go in various directions, sometimes unproductively and so it is important to keep the user and their journey in mind at all times. Sugar recounted the same happening in their group where she being the only one related to the design field used the design journey to align the group and their solution around the user.

解決方案：團隊首先選擇了一個示威遊行的情境，然後選擇了記者/公民記者的角色。在示威遊行的混亂中，我們的記者在短時間內了解這個新的狀況：在斷網中，需要傳送訊息、文件、影音、聯絡人資訊等以及有關抗議集會地點和警察動向的關鍵需求，但傳統的通訊渠道已不再可用。Cake團隊想到可利用FireChat、NFC、藍牙和指紋認證等技術。NFC和藍牙是人們在考慮無網絡情況時自然會想到的技術發展。但同時，團隊結構中工程師多於設計師，這也是為什麼解決方案是以技術為主。在用戶最需要使用此解決方案的關鍵時刻是當警察到達驅散示威時，人們需要找到方法躲避他們，所以他們會分享諸如警察位置、安全示威地點或手機中的任何其他信息等。

另外的解決方案，可以將手機碰撞到另一個人的手機上，從而傳輸一則訊息。這個方案，適合在擁擠的環境中使用，並確保他們將信息發送給特定的人，但它仍然還有一些問題，像是如果在混亂的環境中手機碰到了不對的人，或者怎麼確保信息的正確性。這讓他們有對可信的訊息來源做更進一步的討論。記者與其他示威者合作建立一個去中心化的網絡，允許他們在不依賴網路的情況下安全地傳遞經過驗證的信息。

在另一個方案中，為了讓他們的解決方案觸及更多人，團隊希望能夠在這種情況使用台灣人已經慣用的app，如Line本身。如果Line能夠引入離線功能，使用上將會對台灣的民眾更加的便利及順手也會增加普及度。

在思考解決方案時，往往容易朝各個方向發展，有時甚至會偏離正軌，因此始終牢記用戶及其歷程至關重要。Sugar回憶起他們小組也發生了同樣的情況，作為唯一一個與設計領域相關的成員，她運用設計歷程來調整小組方向，並使解決方案圍繞用戶展開。

"As a team we wanted to understand how existing technologies (FireChat, NFC, Bluetooth, Fingerprint authentication) could be developed into solutions for the Internet Freedom scenarios and what needed improving." - Sugar from Team Cake





Team Cheesecake Overview

A. Scenario:

War-like situation in Taiwan. This team chose this situation because of the topic of the workshop and the tense political relations with CCP and the constant looming threat Taiwanese face about such a possibility of being attacked by CCP.

情境：台灣面臨類似戰爭的情況。團隊選擇這個情境是因為工作坊的名字以及與中國緊張的政治關係，以及台灣人面臨的持續威脅的可能性。

B. Persona:

Journalist. The team thought they could understand and relate to the journalist more and it would be harder to imagine what the activist would need. This does highlight the basic approach of design thinking which is to be able to empathize with the users.

角色：記者。團隊認為他們能比較理解和認同記者，而是面對其他像是社運的需求會比較困難。這突顯了設計思考的基本，能夠與用戶產生連結。

C. Context:

CCP deploys military aircraft over Taiwan disrupting the internet and communications by destroying the infrastructure or blocking the signals, leaving citizens without access to news updates.

Our journalist wakes up to the sound of military aircraft flying overhead. Turning on the TV, they learn that the CCP has deployed military aircraft over Taiwan, causing widespread panic. As the journalist tries to check online news sources, they realize that internet connectivity is becoming increasingly unstable. Feeling a mix of confusion and determination, they head to the news agency's office and on the way notice people on the streets looking anxious and confused, many frantically trying to use their smartphones without success. At the office, the journalist and their colleagues face a grim reality: the internet is completely down, and traditional communication channels are disrupted. They realize they need to find alternative ways to gather and disseminate crucial information to the public.

背景：中共在台灣上空部署軍用飛機，通過破壞基礎設施或阻斷信號來干擾網路和通信，使民眾無法獲取資訊。

我們的記者被頭頂上飛過的軍用飛機聲驚醒。打開電視，他們得知中共已在台灣上空部署軍用飛機，引起廣泛恐慌。當記者試圖查看線上新聞時，他們意識到網路連線變得越來越不穩定。帶著困惑，他們前往新聞台的辦公室，途中注意到街上的人看起來焦慮和迷茫。在辦公室，記者和同事們面臨嚴峻的現實：網路完全中斷，傳統的通信渠道被干擾。他們意識到需要找到替代方案來收集和傳播關鍵資訊給民眾。

D. Goal:

The journalist would want to send the correct information for the public to follow. The message is about the CCP attacking Taiwan and because the communication was shut down, there is no way to know.

The other goal is to enable people to communicate with each other in a war-like scenario.

目標：記者想要向民眾發送正確的信息。訊息是關於中共攻擊台灣，由於通信被切斷，沒有辦法知道具體情況。另一個目標是使人們能夠在戰爭般的情境中相互溝通。

E. Solution finding:

Since people are always connected to the internet at all times, disruption even for a little while can cause people to panic. Team Cheesecake thought about a similar situation where people who might be on their way somewhere in metros etc... would want to know what happened to the internet. With traditional methods unavailable, the team came up with the following solutions to leverage existing infrastructure and local community networks:

District leaders: Each district in Taiwan also has people(sort of a district leader) who are related to the government and take care of the common matters for the public. People could reach out to the district leader to get the right information. These district leaders are a part of many team's solutions because they are an important and prominent part of the social structure. This also makes the solution localized to the Taiwanese region. The journalists will also go to the district leaders to get the information and relay it to the public. Since there is no internet, there needs to be an additional reliance on physical locations for the solutions.

Kiosk machines: Convenience stores become hubs of information, with people gathering to read the latest updates on the bulletin boards.

Line app: Everyone in Taiwan has the Line app and there's a news section(Line Today) on the app. There could be a possibility to collaborate with them to make that feature offline, or users could be allowed to receive updates by scanning QR codes at convenience store kiosks. This is where this team found interesting intersections in their ideas in an attempt to make the solutions robust.

Youbike: While thinking of other prevalent systems in Taiwan the team also thought of using the youbike screens to flash short important messages to the public. Since there are several youbike spots across Taiwan, it can be an innovative use of city infrastructure under dire need.

The team considers journalists to be a trusted source of information and act as a bridge for the public to understand the complex social issues. Journalists offer insights on the important things that the public should care about hence they play a crucial role in informing people about the latest happenings thereby making them a critical part of their solution.

解決方案：由於人們總是連接到網路，即使短暫的中斷也會導致人們恐慌。Team Cheesecake考慮了類似的情況，比如在地鐵等地方的人可能想知道網路怎麼了。在傳統方法不能用的情況下，團隊提出了以下解決方案，利用現有基礎設施和本地社區網絡：

1.里長：台灣地區每個里都會有里長，負責處理公共事務。人們可以聯繫理長獲取正確資訊。里長是許多團隊都有提到的解決方案，因為他們是台灣社會結構中重要的元素。記者也會去找里長獲取資訊並轉達給公眾。由於沒有網路，解決方法需要依賴更多實體地點。

2.Kiosk：便利商店成為資訊中心，人們聚集在公告欄上閱讀最新的資訊。

3.Line APP：台灣每個人都有Line，APP中有新聞部分（Line Today）。可以考慮與他們合作使該功能離線使用，或允許用戶通過掃描便利商店的QR Code接收最新的新聞。這是團隊在研究解決方案時發現的有趣的點。

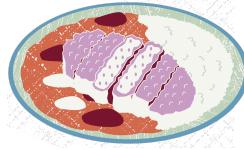
4.Youbike：在思考台灣其他普及系統時，團隊還想到使用Youbike上的螢幕向民眾顯示簡短重要信息。由於台灣各地都有幾個Youbike點，在緊急需要時可以有創意的利用城市基礎設施。

團隊認為記者是可信賴的信息來源，作為公眾理解複雜社會問題的橋樑。記者提供對公眾應該關心的重要事物的見解，因此在告知人們最新發生的事情方面發揮著至關重要的作用，從而成為他們解決方案的關鍵部分。

"We explored leveraging LINE app's potential offline functionality. LINE is the dominant messaging app in Taiwan. LINE already has a news page called LINE Today. We wanted to utilize existing features and make important news available in critical locations, then release it through the convenience store kiosk machine for people to scan the QR code to gain the most updated information. (This function is not currently available at the convenience store nor in the LINE app). We also wanted to address the importance of authenticity in news sources. Particularly, the credibility of news sources in times of chaos." - Biscuit from Team Cheesecake



Team Japanese Curry Overview



A. Scenario:

This team focussed initially on the aspect of internet shutdown sparked by a 'war' like conflict scenario, as a location based phenomena. Meaning that, as well as starting with a persona type, they also focused on the fact that when an internet shutdown occurs, what goes missing is the ability to communicate across significant physical distances. The internet enables us to, with a stable connection, speak to anyone that we have a method of contact for, anywhere that they may be provided they have connection and at any time provided they are able to check their devices/communication methods.

情境：這個團隊最初關注的是由「戰爭」類衝突引發的網路中斷情境，以地點為基準的現象。也就是說，除了從角色開始，他們關注當網路中斷發生時，失去的是跨越實際距離進行通訊的能力。網路能讓我們能夠在連線穩定的情況下，與我們有聯繫方式的任何人交談，無論他們在何處，只要他們有連線，而且在任何時候，只要他們能夠檢視他們的設訊通訊。

B. Persona:

Wangxiaming a taxi driver in his late 50s without too much tech knowledge in the face of war.

角色：王小明，一位年近50歲的計程車司機，在遭逢戰爭時對科技知識了解不多。

C. Context:

As the team focused their explorations on access and mobility potential and the behaviors associated with transit/taxi drivers they then began to explore the social motivations, communication patterns/access, preparation work and finally, the difficult subject of trust and verification. This surfaced from inquiry around critical information being moved by individuals that might have their own agendas or views on the social issue causing the internet shutdown.

背景：隨著團隊將研究重點放在交通和流動力以及與公共交通/計程車司機相關的行為上，他們開始探討關於通勤流動/計程車司機的社會動機的準備工作，最後是對信任訊息和驗證訊息的困難主題。這源於對重點資訊被可能有自己想法或對網路中斷的社會議題有自己看法的人所影響。

D. Goal:

There are certain people that have local, non-internet connections and communications and city-wide mobility (e.g. Taxi drivers and truck drivers). How can these methods be leveraged in an internet shutdown scenario.

目標：有些人擁有當地的非網路連線和通訊方式，以及具城市級的流動性（例如計程車司機和卡車司機）。在網路中斷的情況下，如何利用這些方法。

E. **Solution finding:**

The focus of their explorations therefore became centred on the need of mobility and consistent movement throughout a location (city or district) and what kinds of people do this activity already surfaced the critical user persona of a transit driver or a taxi driver. These citizens also can have access to alternative methods of communication that do not always rely on internet connectivity, such as closed networks of walkie-talkies and radio communications.

The team had a number of areas they could have focused an OSS technology intervention on, including:

1. How do we recognise critical citizens before a crisis that leads to an internet shutdown (e.g. taxi drivers) and prepare them ahead of that crisis to locate, verify and disseminate information.
2. How do people verify and trust information, what are their methods of critical deduction when it comes to information that preserves lives.
3. Similarly, how does information spread both naturally and when more engineered? How can this make its way to people that are not as technologically adept.
4. Once correctly informed and safe, what do citizens then do? What are the next steps in safety, returning to normal life or what are the likely next steps for citizens post crisis.

There was also a concern that taxi drivers may be generous enough to move messages around in limited circumstances or times they care about the issues but ultimately they are sacrificing income to do a messenger role and perhaps they would need some payment for this.

A large general realization among the designers and technologists participating was that in an internet shutdown, typical technology that most people are comfortable using no longer functions at all or as intended. They quickly realized that technology that doesn't rely on internet connectivity might be older, more complicated to set up and use and less instant. Which led to a shift in users that are not ordinarily the focus of.

Upon further discussion with the team members, we discovered that there are many detailed and nuanced aspects that only get lightly mentioned in a 1 day workshop around internet shutdown technologies. One topic was whether or not there are topics that the demographic user of 'transit/taxi driver' would refuse to spread, such as issues more connected to younger people like feminist issues, women's rights and political beliefs and alignment. A potential solution to this though was 'locked' information so the drivers did not know the contents of the message. This was also risky for them though given concern over 'illegal' information.

From Superbloom's design expert perspective this group discovered a user persona that is underserved in the OSS internet shutdowns prevention technology. Personas which do not automatically self-align with technology and/or information or news spreading are rare in this sector. The focus on the pre-crisis phase, sometimes described as the 'training phase' also tends to underserve these kinds of citizens and typically it is hard to engage those not

technologically curious in prevention and resilience technology. The use of technologies such as bluetooth (for sharing information/files), walkie talkie applications, radios and paper based courier messages while astute also reveals that more can be done to help designers and understand the capabilities for technology in these scenarios. The presence of technologists helped this greatly as many shared their own knowledge of tools and technologies beyond that of Superbloom's examples, especially technologies that were incubated in Taiwan.

However, like many prototypes are, they're only the first step in a potential avenue for improvement in technology. The benefits of this team's insight are in focusing on the margins where under represented groups, scenarios and circumstances rise. These are the aspects that OSS censorship circumvention and internet shutdown technologies can learn from generally. How to communicate these insights though, reveals the gap between design practice and OSS technology. Methods for designers who create outputs like this sorely need clearer avenues to signal to relevant technologies and stakeholders.

解決方案：因此，他們探索的重點集中在對一個地點（城市或區域）內的流動性和持續移動的需求，以及什麼樣的人已經有這樣的活動行為，浮現出大眾交通的司機或計程車司機這種重要角色。這些民眾也可以使用不時常依賴網路連線的替代通訊方法，如封閉的對講機網絡和無線電。

團隊有幾個地方可以是開源的，包括：

1. 我們如何在導致網路中斷的危機發生之前辨別關鍵民眾（如計程車司機），並在危機來臨之前將他們定位、驗證和傳播訊息。
2. 民眾如何驗證和資訊的可信度，當涉及到生命安全相關的訊息時，他們的想法和主張會是什麼。
3. 同樣，資訊是如何自然傳播的，以及當更有計劃時如何傳播？這些資訊如何傳達給不太懂科技的人。
4. 一旦正確獲得資訊並安全後，民眾接下來會做什麼？當大家都安全、回歸正常生活的下一步是什麼，或者民眾在危機後可能的下一步會是什麼。

這個團隊最初聚焦於由「戰爭」類似衝突場景引發的網路中斷，作為一種基於位置的現象。這意味著，除了從persona開始，他們還關注於當網路中斷發生時，失去的進行通訊的能力。網路使我們能夠在網路穩定的情況下，與任何我們有聯繫方式的人交談，無論他們在何處、何時只要他們有網路都能夠查看他們的通訊工具。因此，討論重點集中在需要能在

一個地點(城市或區域)內持續移動的需求上，而哪些人已經在做這樣的事，產生了公車司機或計程車司機這一類型的關鍵用戶persona。這些民眾也使用不高度依賴網路連線的通訊方式，如對講機和無線電通訊的封閉網路。隨著團隊將討論重點放在擁有持續移動性公車/計程車司機相關的行為上，他們開始探索動機、通訊模式、準備工作，最後是關於信任和驗證資訊正確性困難的主題討論。這源於傳遞關鍵資訊的人有可能有自己的一套想法或對導致網路中斷的社會議題有自己個人的看法。

團隊有幾個可以讓開源技術參與的項目

包括：

- 如何在導致網路中斷的危機之前找出關鍵民眾(如計程車司機)，並在危機發生前準備他們的地點位置、驗證和傳播信息。
- 人們如何驗證和信任訊息，在涉及保護生命的資訊時，他們的結論推斷的依據是什麼。
- 同樣，信息如何自然擴散以及如何更有計劃地傳播？這如何教授給不太精通科技的人。
- 一旦正確安全地接獲悉，民眾接下來會做什麼？在大家都安全、恢復正常生活的下一步是什麼，或者在危機過後民眾有可能採取的下一步是什麼。

還有一個擔憂是，計程車司機可能在有限的情況下或他們關心的問題上慷慨地傳遞消息，但最終他們是會犧牲收入來扮演傳遞訊息的角色，也許他們需要一些報酬。

參與的設計師和技術含量高的參與者普遍意識到，在網路中斷的情況下，大多數人習慣使用的典型科技完全無法運作或無法按預期運作。他們很快注意到，不依賴網路連接的技術可能更老舊、建置和更難使用和更複雜，反應也不那麼即時。這導致焦點轉到了使用者身上，這在一般來說並不頻繁。經過與團隊成員的進一步討論，我們發現在一天的工作坊中，關於網路中斷，有許多細節和過程的方面只能被快速地提及。其中一個話題是「公車/計程車司機」這一群體是否有拒絕傳播的可能，比如與年輕人更相關的議題，如女權、婦女權利和政治信仰及立場。一個有可能的解決方案是「鎖住」資訊，這樣司機就不知道消息的內容。但考慮到「非法」資訊的擔憂，這對他們來說也是有風險的。

"The team emphasized the importance of this multi-faceted approach: In a crisis like flooding or other natural disasters, we need to ensure that everyone, regardless of their access to technology, can receive and understand life-saving information. High-risk information, such as content related to war, political issues, or rumors, is particularly sensitive. People are often hesitant to share this kind of information because of the varying political stances and interpretations that can lead to conflicts. Many individuals are unwilling to support or deliver any message that could be perceived as a political agenda." - Pepper from Team Japanese Curry





Team Pizza Overview

A. Scenario:

The user persona has critical information that they want to report, yet the act of reporting is repressed by a media outlet that could be worried about national or international governmental backlash. Along with this systemic worry there is the possible social pressure from citizens, organizations and entities aligned with the perpetrator and not the victim.

情境：使用者角色擁有他們想要報導的關鍵資訊，但報導的文章被一家媒體機構所抵制，該機構擔心來自國內或國際政府的反彈。除了這種擔憂外，還有來自民眾、社會組織和與加害者而站在同一陣線的實際的社會壓力。

B. Persona:

Journalist/Citizen journalist. This team focussed on the user persona that has gained critical information about an important, national or international issue and wants to make sure that both citizens and appropriate people in power have access to this information. The team explored the ways that journalists and citizen journalist personas might face challenges like misinformation and disinformation campaigns as well as malicious entities that look to discredit or erase the information and evidence from existence. In our experience as designers working on many projects that face censorship and shutdowns, these personas face targeted attacks and, if an issue is suitably volatile enough, a government or other entity can look to shutdown or throttle internet services or perform targeted censorship. This persona has a high intensity existence once they have obtained information they wish to make public and it becomes important quickly to move away from ordinary, yet insecure internet and communications practices towards privacy and security preserving ones.

角色：記者/公民記者。這個團隊聚焦於一個使用者角色，該角色獲得了關於重要的國家或國際議題的關鍵訊息，並希望確保民眾和適當的有權人士都能獲取這些資訊。團隊討論了記者和公民記者角色可能面臨的挑戰，如錯誤訊息和假消息攻擊，以及試圖抹黑或消滅資訊和證據的惡意組織。這個角色面臨著針對性攻擊，如果一個議題足夠敏感，政府或其他組織可能會試圖關閉或限制網路通訊，或進行有針對性的審查。一旦這個主角獲得了他們希望公布的新聞，他們的生活就會變得高度緊張，迅速從普通但不安全的網路和通訊方式轉向保護隱私和安全的形式就變得非常重要。

C. Context:

The journey that the user persona went on it's necessarily an obvious internet shutdown scenario e.g. war, disaster, malicious entity removing connectivity. It surfaces as more social and technological censorship and intimidation.

To publish is to make a target of one's self and this journey encapsulates the experience of an

individual who's media outlet does not train or support their safety and that meets this risk not in a hypothetical scenario first, but a real scenario.

背景：這段使用者旅程並不是一個明顯的網路中斷場景，例如戰爭、災難或惡意實際切斷網路連線。它更多地呈現被社會和數位科技的管制監控和威脅。發表文章即是將自己暴露在風險之中，而這段旅程描述了一個新聞媒體機構讓個人有機會冒著此風險並不提供安全保護或支援，尤其這是在現實生活中實際發生，而非假設情境下。

- D. **Goal:** To share essential news and information in a way that cannot be traced back to a specific individual through any kind of tracking.

目標：在以任何追蹤方式都無法追溯到特定個人的行蹤，以此前提下的方式來分享重要的新聞和資訊。

E. **Solution finding:**

The team identify a number of points in a journey where technology can intervene:

1. Helping the journalist persona to find out who is likely to be monitoring/surveilling them.
2. Supporting the journalist persona to still use certain words and terms online and offline without raising alarm or risk further monitoring.
3. Helping the journalist persona camouflage or hide critical information on their story 'in plain sight' and transfer that through safe, secure online methods that do not require use of compromised internet or internet connection altogether.

Plenty of exploration was done by the group to find physical locations for information to spread as well as how that information can be trusted, verified and obfuscated by 'passing through many hands'. Here is where the designers encountered the critical aspects of privacy and security alongside an internet shutdown scenario.

The final prototype made was a USB device that could contain vital news, articles and information related to a topic that is possible to have a recognisable logo on. The USB, once opened, would access a 'proxy' or 'sandbox' to open the relevant files for individuals to read. This 'sandbox' was prototyped to work both online and offline. There are still many questions related to trust of devices like USB drives and the risk of malware and viruses on these devices. These in depth topics though would require more user research, exploration and prototype iterations beyond a single day workshop.

Interestingly, the members of this team we spoke to were interested because of the focus on OSS, privacy, security and internet shutdown issues and attended in order to explore those ideas in a group setting. They commented further that if you're not a privacy and security engineer or specialist, speaking about and having input or thoughts on these topics felt 'inaccessible'

without that knowledge and authority. Notably, a member of this team went on to change their study major to engineering and started their own OSS project shortly after the workshop.

解決方案：團隊確定了科技技術可以介入的幾個旅程點：

1. 幫助記者角色找出誰可能正在監視/監控他們。
2. 支持記者角色在線上和線下仍然使用某些用字和術語，而不引起警報或增加進一步監控的風險。
3. 幫助記者角色在「明處」偽裝或隱藏關於他們故事的關鍵訊息，並通過安全、可靠的線上方式傳送資訊，這些方法完全不需要使用被中斷的網路或通訊。

用戶persona經歷的旅程並不一定是明顯的網路中斷場景，例如戰爭、災難、惡意機構中斷連線。它更多地表現為社會和技術審查的恐嚇。用戶persona擁有他們想要報導的重要新聞，但報導卻被國家或國際政府反彈的媒體機構所壓制。除了這種國家機器系統性的擔憂，還有來自與加害者相關的公民、組織和機構的社會壓力。公布新聞意味著讓自己成為攻擊的目標，這個旅程概括了一個個人的經歷，他們的媒體機構並不培訓保護或支援保護他們的安全，而且他們首次面對這種風險不是在假設的說法下，而是在現實生活中。

最終打造的模型是一個可以包含與某個主題相關的重要新聞、文章和訊息的USB工具，可能帶有可辨識別的標籤。一旦打開USB，它會進到一個「代理伺服器」或「安全機制」來開箱相關文件供個人閱讀。這個「安全機制」被設計成可以在線上和線下工作。關於USB驅動器等工具的信任以及這些設備上惡意軟體和病毒的風險仍然存在許多問題。不過，這些深入的主題需要更多的用戶研究、探索和原型擬，超出了單日工作坊的負荷範圍。

有趣的是，我們談到的這個團隊的成員對開源軟體、隱私、安全和網路中斷問題的感到興趣，並參加工作坊以在團隊的形式來探索這些想法。他們進一步回饋說，如果你不是隱私和安全方面的工程師或專家，在沒有這些知識和力量的情況下，討論和對這些主題提出意見或想法感覺「難以觸及」。值得注意的是，這個團隊的一名成員在工作坊後不久改變了他們的主修為工程，並開始了他們自己的開源專案。

"To disseminate the information anonymously, we wanted to recruit individuals to distribute the USB drives to strangers. This creates a chain of anonymous transmission, making it difficult to trace the original source. As the information spreads, individuals can add details or context, further obscuring the origin. But how do people trust each other enough to share the USB and know what to do with it?"

- Pepperoni from Team Pizza



Looking ahead: Post Workshop Feedback and Improving workshops

During workshops at [COSCUP 2023](#) (and in [COSCUP 2024](#)) we received actionable feedback from participants. We've turned these into recommendations for future workshops.

Recommendation #1 - Grounding Design exploration in reality

Design exploration activities are useful for those that know those practices (Designers typically) and those that don't (Activists and OSS Technologists). These are activities like User Persona ([Resource 1](#) and [Resource 2](#)), User Scenario and Journey Mapping ([Resource 1](#)) and Ideation activities ([Resource 1](#) and [Resource 2](#)). However, when you explore design without a clear grounding in the realities of the software and tool landscape people become prone to 'blue sky thinking' ideas that are beyond current or possible technical realities. Time spent focusing on short but clear tool demos and landscapes in the workshop allows participants to apply design explorations to existing technology tools/OSS.

Recommendation #2 - Including OSS maintainers in workshops

OSS is typically open and accessible to anyone for contributions; designers and coders don't need permission to submit improvements but it often feels like you need to ask before offering design. When you involve OSS maintainers and OSS founders in a workshop they are able to communicate any vision or goals they have for the OSS, as well as communicating any user needs they may know. Additionally, the designers get the opportunity to see the OSS in action if the maintainers can do demos.

Recommendation #3 - Including activists in workshops

The presence of people with lived experience of human rights abuses and internet censorship/shutdowns is important to designers, technologists and OSS developers alike. When workshop participants get 'stuck' on a particular point, question or circumstance they can look to the person with experiences to offer perspective and their own account. As an informational resource people with lived experience can quickly feel exploited and vulnerable when offering information and therefore we recommend the safest ways to involve these people possible be it remotely, funded in-person attendance and anonymous representation or representative information. We encourage offering access and further value to the activists or communities in the form of involvement in the OSS.

Recommendation #4 - Design confidence, feedback and designing within systems of oppression

Participants found significance in the processes of feedback between designers. Many designers at the workshop, and in OSS generally, do not get to work closely with other designers (groups of designers are even rarer!) so found the support and feedback process invigorating and valuable to their careers beyond

the workshop. The second implicit effect feedback has, is to build confidence and capability in tackling OSS and Internet Freedom topics by designers which can benefit both OSS and Internet Freedom and proprietary, commercial and for-profit spaces, enabling them to design within systems of oppression.

Recommendation #5 - 2 day workshops with specific focuses

Participants of the 2023 workshop that also attended the 2024 workshop noted that they felt like these were two halves of a single workshop spread out a year apart. They value the day of design thinking exercises at 2023's workshop and the more practical 'make a contribution' focus of 2024's workshop ([Read more here on our blog](#)). We recommend that workshops are a minimum of 2 days, one day to focus on design and user exploration and the second to ensure a tangible contribution is made. These days don't need to both be in person or close together but should ideally happen between 2 weeks and 1 month of each other.

Recommendation #6 - Design legitimacy and further learning in OSS

Designers are more commonly working in sectors that don't understand open source software contributions as valuable work experience and how some designers choose to advance their design skills. The designers in attendance wanted certification/a certificate for being involved in the workshop, and also expressed wanting a curriculum or educational course they could follow from OSS design experts in order to become more proficient in design for OSS and internet freedom.

Recommendation #7 - Small-scale support for prototypes

The technologists and coders in the workshop wanted to be able to spend time building or coding the solutions prototyped in the workshop and test whether or not they solved the problems they intended to. Offering small scale funding to build and test a prototype technology can help to build infrastructure for on-going involvement in developing OSS Internet Freedom technology, design in OSS Internet Freedom technology and supporting the post workshop enthusiasm beyond the moment.



Positionality statements / 定位陳述

Codenames for the researchers are: Nutmeg, Soybean, Cocoa and Basil.

What are your beliefs about Taiwan, OSS and Internet Freedom?

Nutmeg: My beliefs about Taiwan before these workshops was that, as a country, Taiwan was under threat from China in social, political and societal ways. I believed that Taiwan was in a disadvantageous position when it came to fighting or resisting these threats and while the potential risks are complex, Taiwan is incredibly capable, strong and advanced in Internet Freedom Technologies.

Soybean: I believe Taiwan is part of the human world, and the internet serves as a tool for us to communicate and connect as individuals. The internet is an important infrastructure in our network history, akin to highways, railways, and air routes today. Although maintaining these infrastructures comes at a cost, as humans who thrive through collaboration, ensuring the free and open access to the internet is crucial for uniting people. This relies on the collective efforts of individuals across different nations. Open-source software is one of the means to promote internet freedom by developing tools and sharing solutions that ensure everyone has the opportunity to participate in collaboration and technological advancement. Since humans make mistakes, self-correcting mechanisms are essential in every context, and open-source software is one form of self-correction in technology.

Cocoa: I have learnt a lot more about Taiwan and its Internet Freedom and OSS space during the workshops than before. My impressions of the country have mainly been about its strong semiconductor industry, progressive policies and threat from ROC. I have come to learn more about Taiwan's complex need for Internet Freedom tech for various political and geographical reasons. I have come to learn of the resilience of its people, their capabilities and the ecosystem it offers to voice and develop innovative solutions.

Basil: Taiwan currently enjoys a high degree of internet freedom. Unlike some countries, Taiwan does not impose strict regulations on online speech, and people have the freedom to choose how they use the internet. Additionally, internet penetration is very high across the country. Regarding open-source software (OSS), based on my observations, most people are still more accustomed to using paid software or operating systems. This may be due to the school environment, where students typically grow up using Microsoft software, and assignments are often submitted in formats like doc or xls.

What history or personal interaction do you have with Taiwan, OSS and Internet Freedom?

Nutmeg: As a British citizen, before doing these workshops, I distantly understood Taiwan within the context of historical British colonialism. My first direct experiences with Taiwan were directly related to open source software and an inclusive attitude towards design as part of how open source software is made better for users.

Soybean: Honestly, I don't know how to code, but with my social science background, I understand that the birth of technology relies on human collaboration, and designing technology requires the

involvement of many people to meet the needs of different groups. When I first joined the g0v community, my favorite thing was observing how people used technology. This also influenced my choice to pursue a design career. The people here are generous, always willing to share how they use technology, along with data and source code, and they are also open to feedback on what they share. I love this spirit of openness and open source.

Cocoa: While I have experience in OSS and design, I am relatively new to the Internet Freedom space in Taiwan. I approached this workshop as an opportunity to offer my design skills and design experience while learning more about Internet Freedom. I had already worked on a few open source projects mainly targeted for the South Asian context, at the time of joining the workshop.

Basil: In high school, I participated in a translation project for open-source software (OSS). Additionally, I have some experience using OSS and have recently been deeply involved in related workshops.

What is your connection to workshop participants? Do you share any commonalities, identities, or experiences with workshop participants?

Nutmeg: I planned, applied and facilitated workshops around design in open source software and then internet freedom both in Taiwan for this work and also elsewhere through my career. I share and connect to the dedication that Taiwanese people involved in civic tech and OSS have in regards to open access and freedoms. With the workshop participants I share and remember my earlier days of my design career and how community collaboration events shaped my growth and community connection.

Soybean: Many participants, like me, are designers, but they come from diverse backgrounds. Some are also friends from the g0v community. One similarity is that we all enjoy observing human behavior, providing emotional value, and making others feel comfortable and relaxed. In terms of self-identity, I think we all share a desire for everyone to lead a happy life.

Cocoa: I share commonalities of experiences with the workshop participants in a broader Asian context. There are a few common cultural and behavioral commonalities such as the work ethics driven by Indian and Taiwanese economies, cuisine etc... Apart from that I shared a common interest for Open Source and Design in tech, with many participants.

Basil: I personally believe in the importance of internet freedom, but I also think such freedom needs appropriate management. Taking Taiwan's current situation as an example, the lack of regulation may allow malicious actors to manipulate online discourse. Furthermore, even if the government does not impose internet restrictions, businesses might compromise internet freedom in pursuit of profit. I hope to promote internet freedom more deeply in Taiwan and help people understand that there are viable solutions available when facing internet restrictions.

What are your hopes for Taiwan, OSS and Internet Freedom?

Nutmeg: I hope that Taiwanese citizen's interest and access to open source software and openness continues to grow and gradually becomes more inclusive of design practices in a sustainable way. I also hope that Taiwan never suffers under censorship or shutdown but I believe there is the resilience and knowledge to prepare and mitigate these circumstances should they come to pass.

Soybean: I hope Taiwan continues to maintain an open, diverse, and free social environment, allowing creativity, ideas, and technology to thrive. I also hope open-source software becomes a daily tool for more people, embedding the spirit of sharing technology into everyone's lives and enabling collaboration. As for internet freedom, I hope we can continue to promote open access, allowing more people to freely access information, express their ideas, and use the power of the internet for effective collaboration. This way, we can support each other and face global challenges together.

Cocoa: I hope that Taiwan continues to be a relatively safer space for activists and people in general to fight on the right side of Internet freedom. I hope that the culture of design in tech and open source grows stronger and that there are more diverse communities participating in conferences such as COSCUP.

Basil: I hope that people in Taiwan can embrace open-source software (OSS) with greater openness, instead of relying solely on commercial software due to a reluctance to learn. As for internet freedom, I hope that while defending it, people can also enhance their ability to discern misinformation and cherish the hard-earned freedom they enjoy.



OSS and documentations process

This workshop's (and the 2024 workshop) resources, content and illustrations have been uploaded to a [Github Repository `https://github.com/sprblm/The-Design-We-Open/tree/main`](https://github.com/sprblm/The-Design-We-Open/tree/main). There you will find the content under a [CC0 1.0 Universal license](#). This license details under what circumstances people can modify or use this content.

[Superbloom Design](#) maintains open source repositories on an adhoc basis after publishing. If you want to contribute we suggest [creating/participating in issues](#), [creating/participating in discussions](#) or making a [pull request](#).

Find our design documentation in our repository:

<https://github.com/sprblm/The-Design-We-Open/blob/main/Documenting%20Internet%20Shutdowns%20Workshop/graphics%20and%20illustrations/visuals-and-graphics.md>

Thank you

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