



## PROJECT OVERVIEW

# U.S. National Security Agency Re-design

**THE PROBLEM:**

The National Security Agency website is confusing and overwhelming on first impressions and difficult to navigate around efficiently.

**THE SOLUTION:**

To completely re-create the website in a way that's simple to use and navigate around, effectively helping users find the information they need without feeling overwhelmed.

**MY ROLE:** UI and Interface Designer

**TOOLS:** Figma, Adobe Photoshop and Illustrator

**TIMELINE:** 4 weeks





# User Interface Analysis

Bharath Kannan

# Website chosen and to be re-designed



National Security Agency/Central Security Service

About Press Room Careers History

Search NSA



NSA AT RSA CONFERENCE 2024 (MAY 6-9): Visit the NSA booth in the Moscone South Expo (#0960) and be sure to [check out our lineup of speakers!](#)

**Generating foreign intelligence insights.  
Applying cybersecurity expertise.  
Securing the future.**

We leverage our advantages in technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems.

EXPERIENCE NSA

## Our Mission

### Cybersecurity

NSA Cybersecurity prevents and eradicates threats to U.S. national security systems with a focus on the Defense Industrial Base and the improvement of our weapons' security. Through our [Cybersecurity Collaboration Center](#), NSA works with other intelligence agencies and industry partners to defend our nation's critical infrastructure.



### Signals Intelligence

NSA provides foreign signals intelligence (SIGINT) to our nation's policymakers and military forces. SIGINT plays a vital role in our national security by providing America's leaders with critical information they need to defend our country and protect our allies.

<https://www.nsa.gov/>



# National Security Agency (NSA)

- For whom is the website designed?  
Government Agencies and Officials, Military Personnel, Cybersecurity Professionals, Educational Institutions and the public
- What is the main purpose of the homepage?  
To provide information about the agency's mission and initiatives to the public. It serves as a platform for sharing news and public statements related to national security and cybersecurity
- What is the mission of the agency?  
To provide cybersecurity solutions and protect the US security systems against cyber and international threats and improve the weapons security. They also want to produce foreign intelligence information and support national security missions including counterterrorism, counterintelligence and homeland security.

# Proto-Persona



"How do I know for sure that the information I'm getting off the NSA website is accurate and up-to-date?"

- **USER**

Sarah Ann

- **BIO**

Sarah is a cybersecurity analyst working for a private sector company that collaborates with government agencies on national security initiatives. She has a Bachelor's degree in computer science and has been working in the cybersecurity field for about 10 years. Sarah is tech-savvy and keeps up to date with the latest trends and developments in cybersecurity technology. She is highly analytical and detail-oriented, with a strong commitment to national security.

- **INTERESTS**

Reading, Technology and Running

- **GOALS**

Access Information about the latest information and updates from the National Security Agency.

**FIGJAM File:**

<https://www.figma.com/file/MtD0M9mx1Q34a1Mm4CJ3fQ/NSA-FigJAM-File?type=whiteboard&node-id=0-1&t=pbm1Rqadznf9Hyiq-0>

# Proto-Persona (Continued)

- 
- **USER**  
Sarah Ann
  - **NEEDS AND EXPECTATIONS**
    - Sarah needs quick and easy access to the latest information and updates from the National Security Agency to stay informed about potential security threats and policy changes.
    - Sarah will need to use the website to help her with her quarterly training with best practices in Cyber Security. She relies on the website to retrieve accurate and up to date information.
  - **MOTIVATIONS**
    - Sarah frequently accesses resources such as reports, guidelines, and training materials provided by the agency to support her work in cybersecurity
  - **PAIN POINTS**
    - Sarah needs the website to be easy to understand, follow and easy to navigate around to where she wants to be. She doesn't like clutter or being overwhelmed with jargon or information she doesn't understand too well.
    - Sarah wishes the website offered more interactive features, such as forums or discussion boards, to facilitate collaboration and knowledge sharing among users.
    - Sarah finds the website to be outdated and therefore unreliable.
    - Wishes there was a way to know if the information is accurate and up to date.
    - She finds flashy designs with too much going on quite overwhelming, she prefers simple but modern.



# Statement

## **Why does Sarah Ann need to visit the NSA website?**

Sarah visits the NSA website to access vital information related to her work, resources, and updates essential for her role as a cybersecurity analyst. As a professional dedicated to safeguarding national security, she relies on the website to stay informed about emerging threats, policy changes, and best practices in cybersecurity. It is very important for Sarah to receive accurate and up to date information that is compliant with the laws around information and she relies on government websites to retrieve that information for her line of work.

# Webpages that the user visits

## NSA Cybersecurity Advisories & Guidance

The screenshot shows the homepage of the NSA Cybersecurity Advisories & Guidance website. The header includes the NSA/CSS logo and navigation links for About, Press Room, Careers, History, and Issue New. The main title "NSA Cybersecurity Advisories & Guidance" is centered above a search bar. Below the search bar, there's a brief introduction about NSA's technical capability to develop advisories and mitigations for emerging cybersecurity threats, followed by a link to the "Search responses to these threats". A note about the availability of cybersecurity products for network and general network security is also present, with a link to the "Techmark and Mitre Defense Updates". A callout for protecting DoD microelectronics from adversary influence is mentioned, with a link to the "DoD Microelectronics Guidance page".

NSA leverages its elite technical capability to develop advisories and mitigations on emerging cybersecurity threats. Browse or search our repository of advisories, info sheets, tech reports, and operational risk notices listed below. [Search responses to these threats.](#)

For a catalog of cybersecurity products focused on network and general network security for end users, view [Techmark and Mitre Defense Updates](#).

To read our complete series on protecting DoD microelectronics from adversary influence, view our [DoD Microelectronics Guidance page](#).

Message	Title	Publish Date
	CS: Commercial National Security Algorithm Suite 2.0 (CNSSA 2.0 Final) (April 2024 Update)	4/17/2024
	CS: Deploying AI Systems Securely	4/15/2024
	CS: Advancing Zero Trust Maturity Throughout the Data Pillar	4/6/2024
	FRC: State-Sponsored Cyber Activity Actions for Critical Infrastructure Leaders	3/19/2024
	CS: Enforce Secure Automated Deployment Practices through Infrastructure as Code	3/7/2024
	CS: Use Secure Cloud Key Management Practices	3/7/2024
	CS: Mitigate Risks from Managed Service Providers in Cloud Environments	3/7/2024
	CS: NSA's Top Ten Cloud Security Mitigation Strategies	3/7/2024
	CS: Implement Network Segmentation and Encryption in Cloud Environments	3/7/2024
	CS: Secure Data in the Cloud	3/7/2024
	CS: Upgrade the Cloud Shared Responsibility Model	3/7/2024
	CS: Manage Cloud Logs for Effective Threat Hunting	3/7/2024
	CS: Account for Complexity Introduced by Hybrid Cloud and Multi-Cloud Environments	3/7/2024
	CS: Use Secure Cloud Identity and Access Management Practices	3/7/2024
	CS: Advancing Zero Trust Maturity Throughout the Network and Environment Pillar	3/5/2024

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**Additional Resources**

Some guidance is restricted and requires use of a DOD Common Access Card (CAC) to access. Visit [https://www.dodcio.dod.mil/resource-access-and-authentication/](#) to access the following and other restricted documents:

- [Analyze Dangers of Misused TLS Certificates and the JUNCA Technique \(FOUO version\)](#)
- [Protecting VoIP Communications](#)
- [Digital Identity and Authentication: Cryptography and Hash Functions: A Review](#)
- [Securing AWS S3](#)
- [Security Considerations for Office 365 Government Customers](#)

# Webpages that the user visits

## Our Offerings

### Our Offerings

<b>DIB Cybersecurity Services</b> NSA offers no-cost cybersecurity services to any company that has contracts with DoD or access to non-public DoD information. <a href="#">LEARN MORE</a>	<b>Collaborative Partnerships</b> NSA establishes collaborative relationships to prevent, detect, and defend cyber adversaries targeting our nation's most sensitive networks. <a href="#">LEARN MORE</a>	<b>Standards and Certifications</b> U.S. participation in standards and certifications secures emerging technologies and empowers U.S. industry to shape the market. <a href="#">LEARN MORE</a>	<b>Cybersecurity Academic Outreach</b> NSA invests in academic partnerships to recruit, train, equip, and retain the next generation of diverse cybersecurity professionals. <a href="#">LEARN MORE</a>
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### Enduring Security Framework

The Enduring Security Framework (ESF) is a public-private partnership that aims to address risks that threaten critical infrastructure and National Security Systems (NSS). ESF is charged with bringing together representatives from private and public sectors to work on intelligence-driven, shared cybersecurity challenges.

ESF produces cybersecurity guidance on chronic challenges, jointly developed by NSA, CISA and industry partners.

[LEARN MORE](#)

# Webpages that the user visits

## NSA Cybersecurity Collaboration Center

The screenshot shows the homepage of the NSA Cybersecurity Collaboration Center. At the top, there's a banner featuring the NSA seal and the text "NSA Cybersecurity Collaboration Center" with the subtitle "Intel-driven cybersecurity through open, collaborative partnerships". To the right is a decorative graphic of interconnected triangles. Below the banner is a video player showing a woman in a green dress speaking. The video has a play button in the center and "Watch on YouTube" text at the bottom. To the right of the video, the section title "Our Mission" is displayed, followed by a paragraph of text about the center's role in scaling intel-driven cybersecurity. A "Contact Us" link is also present. At the bottom, the section title "DIB Cybersecurity Services" is shown, along with three service cards: "Protective Domain Name Services (DNS)", "Attack Surface Management", and "Threat Intelligence Collaboration". Each card includes a brief description and a "Learn More" button.

**Our Mission**

The NSA Cybersecurity Collaboration Center (CCC) is how NSA scales intel-driven cybersecurity through open, collaborative partnerships. The CCC works with industry, interagency, and international partners to harden the U.S. Defense Industrial Base, operationalize NSA's unique insights on nation-state cyber threats, jointly create mitigations guidance for emerging activity and chronic cybersecurity challenges, and secure emerging technologies.

[Contact Us >](#)

**DIB Cybersecurity Services**

at no cost to DoD Contractors

**Protective Domain Name Services (DNS)**

Block users from connecting to malicious domains to drive down risk and protect DOD information.

**Attack Surface Management**

Gain an adversarial view of your network; find and fix issues before they do.

**Threat Intelligence Collaboration**

Stay one step ahead of the adversary through NSA threat intelligence.

# Webpages that the user visits

## Preventing and Eradicating Cyber Threats

The screenshot shows the NSA Cybersecurity website homepage. At the top, there's a purple header bar with a world map background. On the left, it displays 'Activity' and 'Up time: 27:14:27:14'. In the center, the title 'Preventing and Eradicating Cyber Threats' is prominently displayed. Below the title, a subtext reads: 'NSA's cybersecurity Collaboration Center promotes public-private partnerships to deliver cybersecurity outcomes.' A 'GO TO THE CENTER' button is located below this text. To the right, there's a 'Partnerships' section with a 'Learn More >' link. The main content area is divided into several sections: 'Advisories & Technical Guidance' (with a 'BROWSE' button), 'Products & Services' (with a 'EXPLORE' button), 'Threats Intelligence & Assessments' (with a 'BROWSE' button), 'Post-Quantum Resources' (with a 'BROWSE' button), 'Communications Products & Annual Reviews' (with a 'EXPLORE' button), and 'NSA Cyber Exercise' (with a 'LEARN ABOUT NCE' button). Each section has a brief description and a small thumbnail image.

The screenshot shows the 'Frank B. Rowlett Awards' page. It features a large portrait of a man with glasses and a mustache on the left. The title 'Frank B. Rowlett Awards' is at the top, followed by a description: 'Each year, NSA recognizes the outstanding work of federal government organizations and individuals who significantly improved cybersecurity advancement in classified or unclassified security-related areas.' A 'LEARN & NOMINATE' button is at the bottom. The background is dark with a subtle circuit board pattern.

# Webpages that the user visits

## Contractor Protection

**Contractor Protection**

Department of Defense (DoD) contractors have access to sensitive U.S. Government information and are frequently targeted by nation-state actors to gain access to DoD information and intellectual property. Once you sign a contract with the DoD, you become an attractive target to our adversaries. Fortunately, you don't have to defend against them alone.

**NSA offers no-cost cybersecurity services to any company that contracts with DoD (as prime or subcontractor) or has access to non-public DoD information.** NSA services help protect against some of the most common nation-state exploitation vectors and are powered by unique, non-public indicators of known malicious activity derived from NSA's signals intelligence, cybersecurity analytic expertise, and integrated cyber partners. These services include Protective DNS (a DNS filter), attack surface management, and access to non-public NSA threat intelligence.

[Learn more](#)

Do you have an active DoD contract? Enroll in NSA's DoD Cybersecurity Services.

[REGISTER NOW](#)

**Types of Services**

**Protective DNS**

Domain Name System (DNS) is essentially the address book of the internet and redirects a human-readable URL, such as www.NSA.gov, to the appropriate machine-readable IP address. Because DNS is so central to the internet, it's frequently hijacked by adversaries to install malware and gain initial access to sensitive systems.

Protective DNS (POND) is a DNS Filter which blocks users from connecting to malicious or suspicious domains. To date, NSA's POND program has blocked 1 billion malicious or suspicious domains, including nation state spear-phishing, malware, botnets, and ransomware. POND also provides a reporting feature that allows users to track their interactions with a compromised system along with a comprehensive reporting of suspicious and harmful domain activity.

To learn more, review our [POND Overview document](#), or watch our [POND YouTube video](#).

[LEARN MORE](#)



**Attack Surface Management**

Through this service, our team takes an adversarial approach to illuminate any internet-facing assets, searching for ways your network might be vulnerable. This allows our customers to identify and remediate issues before they become compromises. Each NSA Attack Surface Management review also leverages unique threat intelligence regarding emerging malicious activities, which has been shown to disrupt nation-state campaigns targeting the DoD.

[LEARN MORE](#)



**Threat Intelligence Collaboration**

Enter into a voluntary, mutually beneficial one-way threat information sharing relationship with the NSA. Our team will establish a secure collaboration channel with your cyber threat analysts and share non-public, DoD-specific threat intelligence to help prevent, detect, and respond to threats to your organization. This is not a two-way sharing model. NSA will not share your threat intelligence with us; we will only share our threat intelligence with you.

[LEARN MORE](#)

# Website Analysis

The image shows a collage of screenshots from the National Security Agency's website, specifically the 'Government Agency' section. The annotations highlight various design aspects:

- Top Left:** A screenshot of a page with a dark background featuring a grid of icons. Annotations include a red circle with 'A' at the top right of the grid, a blue circle with 'B' at the bottom left of the grid, and another blue circle with 'B' at the bottom right of the grid.
- Top Center:** A screenshot of a page titled 'Our Mission'. It features a large circular icon with a globe and the word 'Cybersecurity'. Annotations include a red circle with 'A' at the top left of the icon, a blue circle with 'B' at the bottom left of the icon, and another blue circle with 'A' at the bottom right of the icon.
- Middle Left:** A screenshot of a page titled 'Aligning for Success'. It has three main sections: 'Research', 'Academics', and 'Business'. Annotations include a red circle with 'B' at the top left of the 'Research' section, a blue circle with 'B' at the bottom left of the 'Academics' section, and a blue circle with 'A' at the bottom right of the 'Business' section.
- Middle Center:** A screenshot of a news page with two main articles. Annotations include a red circle with 'B' at the top left of the first article, a blue circle with 'A' at the top left of the second article, and a blue circle with 'B' at the bottom left of the second article.
- Bottom Left:** A screenshot of a page titled 'National Cryptologic Museum'. It features a grid of letters and symbols. Annotations include a red circle with 'B' at the top left of the grid, a blue circle with 'A' at the bottom left of the grid, and another blue circle with 'B' at the bottom right of the grid.
- Bottom Right:** A screenshot of a sidebar or footer area. It includes a logo, a search bar, and several links. Annotations include a red circle with 'B' at the top left of the sidebar, a blue circle with 'B' at the bottom left of the sidebar, and a blue circle with 'A' at the bottom right of the sidebar.

Figma link to Website Annotations:

<https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=0-1&mode=design&t=0Naa9XtjU2XIK6sf-0>

# User Path

The screenshot shows the homepage of the National Security Agency/Central Security Service. At the top, there is a navigation bar with links for About, Press Room, Careers, History, and Search NSA. Below the navigation bar, a large banner features the text "Advancing Intelligence through Science" and "NSA Research focuses on innovation and collaboration to maintain the competitive edge." A "RESEARCH @ NSA" button is located in the center of the banner. The main content area includes sections for "Overview", "The Next Wave", "Research Issues", "Mission-Oriented Research", "Science of Security", and "Technology Transfer Program". Each section contains a brief description and a "Learn More" link.

The screenshot shows the "About" page under the "Research" section. The header includes the NSA/CSS logo and the text "National Security Agency/Central Security Service". Below the header, a banner states "Generating foreign intelligence insights. Applying cybersecurity expertise. Securing the future." The main content area is titled "Our Mission" and includes sections for "Cybersecurity" and "Signals Intelligence", each with a "Learn More" link. At the bottom, a section titled "Aligning for Success" features cards for "Research", "Academics", and "Business".

Homepage > About > Research

# User Path

The diagram illustrates a user path starting from the NSA/CSS homepage, navigating through the 'About' section, and finally reaching the 'Cybersecurity' page.

**Homepage:**

- Header: National Security Agency/Central Security Service
- Navigation: About, Press Room, Careers, History, Search NSA
- Main Content:
  - Advancing Intelligence through Science**: NSA Research focuses on innovation and collaboration to maintain the competitive edge.
  - RESEARCH @ NSA**
  - Overview**: NSA conducts leading-edge research to advance U.S. intelligence and national security capabilities by inventing, developing, and applying advancements in science and emerging technologies. [Learn More >](#)
  - The Next Wave**: NSA offers the latest news on emerging technologies in research. [Read Issues >](#)
  - Mission-Oriented Research**: NSA focuses on seven mission-oriented research areas.
  - Science of Security**: NSA sponsors the Science of Security (SoS) Initiative for the promotion of a foundation of cybersecurity science that is needed to mature the cybersecurity discipline and to underpin advances in cyber defense.
  - Technology Transfer Program**: NSA Technology Transfer Program, translating NSA research and expertise to industry, academia, and other research organizations, benefiting the economy and the Agency mission. The program has an extensive portfolio of patented technologies across multiple technology areas.

**About > Cybersecurity Page:**

- Header: NSA/CSS | About
- Section: Preventing and Eradicating Cyber Threats
- Content:
  - NSA Cybersecurity**: NSA prevents and mitigates threats to U.S. national security interests and a focus on the Defense Industrial Base and the improvement of U.S. resiliency. It also drives prevention cybersecurity measures and research findings.
  - Partnerships**: NSA partners with other U.S. Government agencies, allies, industry,学术界, and associations to strengthen cybersecurity by working to enhance the state of cybersecurity.
  - Advisors & Technical Guidance**: NSA shares its experience and technical guidance released by NSA.
  - Products & Services**: From open source code to NSA certification, many have access to the types of products and services we offer to customers and consumers.
  - Threats Intelligence & Assessments**: NSA offers insights on threat intelligence and assessments to their downloadable resources.
  - Post-Quantum Resources**: NSA shares our view on the remaining algorithmic in the National Institute of Standards & Technology post-quantum standardization effort.
  - Communications Products & Annual Reviews**: NSA announces how it is building its cybersecurity mission through various communications products and annual reviews.
  - NSA Cyber Exercises**: NSA Cyber Exercise (NSCE) is a joint multi-industry training and exercise program that helps organizations prepare for potential cyber incidents and challenges through practical exercises and lessons learned.
- Frank B. Lovett Awards**: Each year, NSA recognizes the outstanding work of federal government organizations and individuals who have greatly improved or contributed to a advancement of knowledge or enhanced security-related areas.

Homepage > About > Cybersecurity

# User Path



About Press Room Careers History

Search NSA

## Advancing Intelligence through Science

NSA Research focuses on innovation and collaboration to maintain the competitive edge.

RESEARCH @ NSA

### Overview

NSA conducts leading-edge research to advance U.S. intelligence and national security capabilities by inventing, developing, and applying advancements in science and emerging technologies.

[Learn More >](#)

### The Next Wave

NSA offers the latest news on emerging technologies in research.

[Read Issues >](#)

#### Mission-Oriented Research

NSA focuses on seven mission-oriented research areas:

#### Science of Security

NSA sponsors the Science of Security (SoS) Initiative for the promotion of a foundational cybersecurity science that is needed to move the cybersecurity discipline and to undergo advances in cyber defense.

#### Technology Transfer Program

NSA Technology Transfer Program (TTP) promotes NSA's mission to transfer NSA's scientific and technical knowledge to industry, academia, and other research organizations, benefiting the economy and the Agency mission. The program has an extensive portfolio of patented technologies across multiple technology areas.

ntral Security Service

About Press Room

## Central Security Service (CSS)

SUPPORTING THE MILITARY

HOME > ABOUT > CENTRAL SECURITY SERVICE

The Central Security Service (CSS) provides timely and accurate cryptologic support, knowledge, and assistance to the military cryptologic community. Established by presidential directive in 1972, CSS promotes full partnership between the NSA and the cryptologic elements of the Armed Forces, and teams with senior military and civilian leaders to address and act on critical military-related issues in support of national and tactical intelligence objectives. CSS coordinates and develops policy and guidance on the signals intelligence and cybersecurity missions of NSA/CSS to ensure military integration.

Combining NSA and CSS caused the Director, NSA to become dual-hatted as Chief, CSS and also created a more unified cryptologic effort. The principal advisor to Director, NSA/Chief CSS on military cryptologic issues is the Deputy Chief/CSS (DCH/CSS). The DCH/CSS oversees the function of the military cryptology system; manages and cultivates the partnerships between NSA/CSS and the Service Cryptologic Elements; and ensures military capabilities.

In 1996, Director, NSA/Chief, CSS U.S. Air Force Lt. Gen. Kenneth A. Minihan approved the creation of a CSS seal designed to represent the combined commands. Updated in 2022, the seal now displays all six of the Service Cryptologic Components, which are comprised of the United States Fleet Cyber Command, the United States Marine Corps Director of Intelligence, the United States Army's Intelligence and Security Command, the 16th Air Force representing both United States Air Force and United States Space Force services, and the US Coast Guard Deputy Assistant Commandant for Intelligence. Each are equally balanced around a six point star on which is centered the symbol of NSA/CSS, who provides the funding, direction, and guidance to all of America's SIGINT activities. Learn more about [NSA/CSS seals](#).

Homepage > About > Central Security Service (CSS)

# Heuristic Evaluation

Link to Spreadsheet file:

<https://docs.google.com/spreadsheets/d/1df9qZYT3kLNwiLP51xCMIAxuSGWIZZgVCM5KP-Ovb3s/edit#gid=0>

Website Name: National Security Agency			
Website URL: <a href="https://www.nsa.gov/">https://www.nsa.gov/</a>			
Heuristic	Rating		Comments
<b>Appearance/aesthetics: first impressions are important—they can make the difference between users staying or leaving your site</b>			
Example	3	2	1
Primary goal or purpose is clear			The purpose isn't clear to the people who don't work in Cybersecurity or government related fields.
Clean, simple design			The design is not consistent and has a confusing layout that's hard to follow.
Pleasing color scheme			The colour scheme is inconsistent with lots of green and blue and some area's are hard to read and not contrasting with each other well, so not accessible.
Appropriate use of white space			There is not much appropriate use of white space, it feels a bit cluttered.
Consistent design			The design is not consistent with the colour schemes and colours feel all over the place.
Text and colors are consistent			The text has different inconsistent fonts. Colours aren't consistent.
Icons are universally understood			Icons are clear but the size is a bit too big so should be appropriately sized
Images are meaningful and serve a purpose			The stock images are clear on what the NSA is about and serves the purpose

# Heuristic Evaluation

Link to Spreadsheet file:

<https://docs.google.com/spreadsheets/d/1df9qZYT3kLNwiLP51xCMIAxuSGWIZZgVCM5KP-Ovb3s/edit#gid=0>

Efficiency/functionality: following basic rules will keep user frustration to a minimum				
Website loads quickly			Website loads fairly quickly, loading time isn't too bad	Baz
Custom 404 errors			None that I could find	
Error messages are meaningful			None that I could find	
Login is in upper-right corner of page			No login page found	
Proper etiquette for links off site			Links are highlighted in a blue colour where it's hyperlinked	
Contact information is easy to find			Contact information is all the way at the bottom, user has to scroll a lot to get to the contact page, easy to miss and can be hard to find if user doesn't intuitively know.	
Login is easy to find			None that I could find	
Hours are easy to find			None that I could find	
No broken links			Links are working as expected	
User knows the status of searches			No search status	
User knows if they are logged in/out			Not applicable here	
System supports undo and redo			Yes it does	
Forms autofill and calculate when practical			Autofill is there on forms and searches for name and details	

# Colour Accessibility Tests

Link to FIGMA board:

<https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=80-70&mode=design&t=EoKkKzs5KNTQT81o-0>

The image displays four separate screenshots from a Figma board titled "Contrast Checker". Each screenshot shows a color palette interface with two color swatches (Foreground and Background), color pickers, alpha sliders, and luminance sliders. Below the palettes is a "Contrast Ratio" box, followed by a "permalink" link. Each screenshot also includes a "Normal Text" section with WCAG AA and AAA compliance status, and a "Large Text" section with similar status. At the bottom of each screenshot is a "WebAIM Accessibility Testing Services" box containing a brief description and a "Learn more about WebAIM Evaluation Services" button.

- Screenshot 1:** Foreground: #BCBEC4, Background: #343437. Contrast Ratio: 6.67:1. WCAG AA: Pass, WCAG AAA: Fail. Text: "The five boxing wizards jump quickly."
- Screenshot 2:** Foreground: #F2F2F2, Background: #644778. Contrast Ratio: 6.91:1. WCAG AA: Pass, WCAG AAA: Fail. Text: "The five boxing wizards jump quickly."
- Screenshot 3:** Foreground: #DCCCD2, Background: #41627C. Contrast Ratio: 4.06:1. WCAG AA: Fail, WCAG AAA: Fail. Text: "The five boxing wizards jump quickly."
- Screenshot 4:** Foreground: #6A6A6A, Background: #000000. Contrast Ratio: 3.88:1. WCAG AA: Fail, WCAG AAA: Fail. Text: "The five boxing wizards jump quickly."



# User Research Plan

Objective: The objective of this user research plan is to conduct usability tests on the National Security Agency/Central Security Office website to identify and analyze usability issues that users encounter while performing essential tasks. The insights gained from these tests will inform improvements to the website's design and functionality, ultimately enhancing the user experience.

Participants: We will recruit five participants from various backgrounds or interests in cybersecurity



# User Research Plan (Continued)

## Tasks:

Navigate to the section on Cybersecurity: Participants will be asked to find and navigate to the section of the website that provides information on cybersecurity.

Navigate to the section on NSA Cybersecurity Advisory and guidance page: Participants will be asked to find and navigate to the section of the website that provides information on cybersecurity.

Find contact information for the agency: Participants will be asked to locate the contact information for the public affairs office of the agency.

Provide feedback on the website's design and usability: Participants will be encouraged to provide general feedback on their overall experience with the website, including any usability issues encountered and suggestions for improvement.



# User Research Plan (Continued)

## Procedure:

**Introduction:** The facilitator will welcome participants, explain the purpose of the usability test, and obtain consent for recording the session.

**Task Instructions:** The facilitator will provide clear instructions for each task, emphasizing that participants should think aloud while performing the tasks.

**Task Execution:** Participants will independently attempt to complete each task while the facilitator observes and takes notes on their interactions with the website.

**Post-Task Interview:** After completing each task, the facilitator will conduct a brief interview to gather feedback on the task experience, including any difficulties encountered and suggestions for improvement.

**Debrief:** The facilitator will thank participants for their participation, answer any questions they may have, and provide information on how their feedback will be used to improve the website.



# User Research Recordings

Zoom recording was used to interview the candidate and find out any insightful data regarding the NSA website along with written notes.

Google Drive link to Zoom recordings:

[https://drive.google.com/drive/u/0/folders/1GXx\\_BAAdkqFf45tC0nhkXgucjP61FFqG](https://drive.google.com/drive/u/0/folders/1GXx_BAAdkqFf45tC0nhkXgucjP61FFqG)

# Guerilla Testing Results

## 1. Navigation to the section on Cyber Security

Participant initially struggled to locate the cybersecurity threats section but eventually found it after exploring the navigation menu.

Confusion with navigation and lack of clear labeling for sections.

With a computer science background, it can be child's play compared to someone who does not understand technology, they may not know what Cybersecurity or the NSA is. People who don't know computers would struggle to navigate the NSA website. A 5 year old will definitely not be able to understand the NSA website or the terminology used on the website.

Contact form is easy to find even if you have to scroll all the way to the bottom but can understand why many users may not like to scroll all the way down so should put the contact link on the header of the webpage.

Link to FIGJAM Board:  
<https://www.figma.com/file/MtD0M9mx1Q34a1Mm4CJ3fQ/NSA-FigJAM-File?type=whiteboard&node-id=0-1&t=eNITOajiLl505Fwd-0>

## 2. Navigate to the section on NSA Cybersecurity Advisory and guidance page

Participant quickly found the NSA Cybersecurity Advisory section but had difficulty navigating the page

Participant found navigation fairly simple to go to the page I told him to go to.

Participant says the appearance looks more alien and less like government vibe. Definitely the UI and colour scheme needs to be different and improvement. The website works but can do with a lot of improvement

Thoughts on the website he thinks the design is okay standard but can be improved a lot. For people who don't know the website as well, they don't always know and will take a lot of time to figure it out, which may not be ideal for people who are unfamiliar to the website.

Navigation wasn't too difficult for him, he was able to easily find the webpages related to Cyber Security but did find that the information is overwhelming for the average user. A person who isn't in Cybersecurity may not understand the jargon.

# Guerilla Testing Results (Continued)

## 3. Find contact information for the agency:

Participant navigated to the "Contact Us" page but had trouble locating specific contact information for the public affairs office.

Participant says most websites have the contact link at the bottom he finds. But this NSA website has a fair amount of scrolling to do compared to other websites and some people may not always know where to automatically go.

Lack of clear labeling for specific departments or offices.

NSA has a role in securing power grid and communication systems within the US nation. Cybersecurity can help protect patient records and data. NSA principle role is counter-terrorism and cyber attack prevention.

## 4. Provide feedback on the website's design and usability:

Users encountered loading issues and errors, impacting their user experience and ability to complete tasks successfully

Participant says Cybersecurity can be useful for doctors like patient details and confidentiality, existing measures to prevent data leaks are trusting so far. NSA ensures that patient data is not stolen from hospitals.

Participant says design is fine for the most part but needs improvement in some places. Colour schemes are a bit weird. Show the buttons for 'Learn More' more clearly to the user. NSA has a specific target audience who would benefit from it.

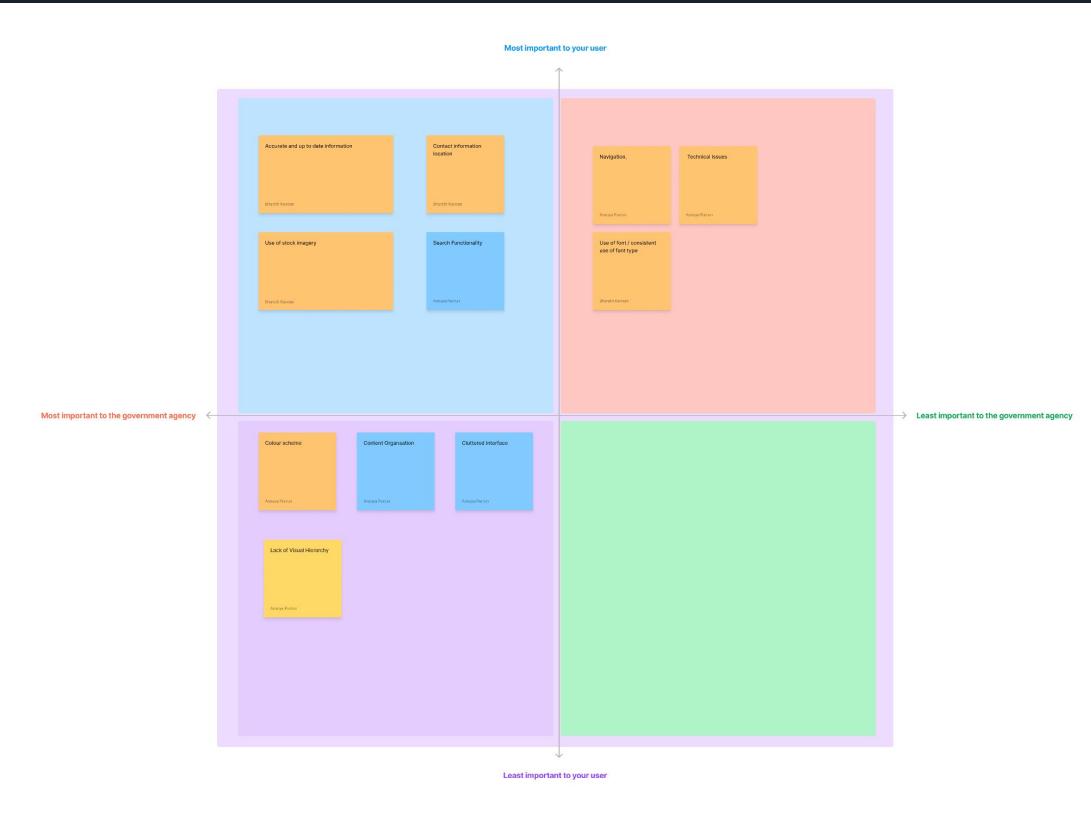
Participant says there needs to be a way to notify the user whether the information is accurate and up to date so having a last updated at so and so date. Inaccurate data and information can lead to unintended consequences if someone working in the NSA provides incorrect data or builds solutions based on outdated information.

Lack of Visual Hierarchy: Users struggled to identify important information or prioritize tasks due to the lack of clear visual hierarchy in the website's design, leading to confusion and frustration.

## Link to FIGJAM Board:

<https://www.figma.com/file/MtD0M9mx1Q34a1Mm4CJ3fQ/NSA-FigJAM-File?type=whiteboard&node-id=0-1&t=eNITOajiLI505Fwd-0>

# Guerilla Testing 2x2 Matrix



Link to FIGJAM Board:  
[https://www.figma.com/file/MtD0M9mx1Q34a1Mm4CJ3fQ/NSA-FigJAM-Fil e?type=whiteboard&nod e-id=0-1&t=eNITOajjLI505Fwd-0](https://www.figma.com/file/MtD0M9mx1Q34a1Mm4CJ3fQ/NSA-FigJAM-File?type=whiteboard&node-id=0-1&t=eNITOajjLI505Fwd-0)



# Usability and Heuristics Issues

- I've listed a couple of notes and findings from the user interviews when they navigated through the website.
- Based on the findings from the Guerilla testing, users found issues with the visuals and aesthetics, felt like the website hadn't been updated in years and some parts of the website needed tweaking to make it feel more modern and intuitive for users who may not necessarily have a background with the NSA.
- Choice of words should be carefully considered to avoid putting people off from navigating the website.
- The notes for the Heuristic evaluation and usability can be found in the Figma link below.

Link to FIGMA Board:

<https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=87-518&mode=design&t=XcloWqKSN0kKGLkN-0>

# Moodboard

Link to the Moodboard for NSA:

<https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=91-548&mode=design&t=XcloWqKSN0kKGLkN-0>



A dark-themed landing page template for a cyber security program. At the top left is a green shield icon labeled "SHIELD". The main heading "CYBER SECURITY" is prominently displayed in white and green. Below the heading, a subtext states: "Shield is a comprehensive cyber security program designed to protect organizations from a wide range of cyber threats." A "DOWNLOAD" button is located at the bottom left. The background features a pattern of grey hexagons with glowing green outlines.

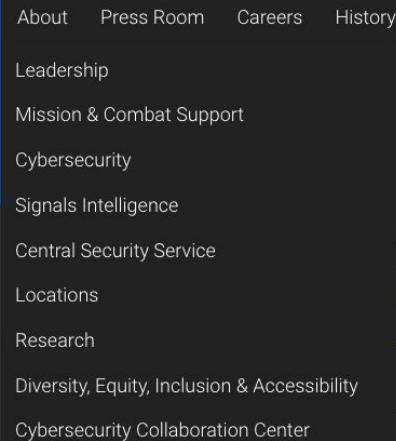
A dark-themed landing page template for a security service. At the top right is a logo for "Safety & Security GUARDS" featuring a shield icon. The main heading "WE PROVIDE Security Service" is in bold white text. Below the heading, a subtext reads: "Suspendisse incidunt ornare sem, at venenatis lorem tempor velled sit amet nisi non dignissim." A "READ MORE" button is present. On the right side, there is a photograph of a security guard in uniform. At the bottom, a red footer bar lists five services: "Itercon systems", "CCTV", "IP-camera systems", "Access control", and "Alarm signaling", each accompanied by a small icon.



# Information Architecture

Bharath Kannan

# NSA Website Navigation Heuristics



We assessed the current branding used on the NSA website along with the existing navigation. In order to make improvements to the website, we first had to familiarise ourselves with the website's current structure and branding used and being able to make improvements from there.

The screenshot shows the NSA/CSS homepage. At the top, there are two circular seals: the NSA/CSS seal on the left and the NSA/CIA seal on the right. The title "National Security Agency/Central Security Service" is centered between them. Below the title is a search bar with the placeholder "Search NSA" and a magnifying glass icon. The main content area is divided into several sections: "NSA.GOV" (About, Leadership, Cybersecurity Collaboration Center, National Cryptologic Museum, Contact NSA, Accessibility, ABA Notice, Site Policies); "CULTURE" (Core Values, Operating Authorities, Civil Liberties, Privacy, & Transparency Office, Compliance, Diversity, Equity, Inclusion, & Accessibility, General Counsel); "HELPFUL LINKS" (NSA Freedom of Information Act, Privacy Act Requests, Request a Speaker, Prepublication Review, Media Inquiry, Frequently Asked Questions); and "RESOURCES" (Classified Material Conversion, Commercial Solutions for Classified Program (CSC), Cryptographic Support Services, Media Destruction Guidance, NSA Open Source). At the bottom left, there are links to "RELATED LINKS" for DNI.gov, Defense.gov, IC on the Record, and Intelligence.gov. The footer contains the NSA/CSS seal and the text "NSA/CSS".

Figma link to full analysis and annotations:

<https://www.figma.com/file/NvxEViYa4J2zLlrRNpvyg/NSA-Government-Agency?type=design&node-id=135-2696&mode=design&t=5VIDkzx67F1qcUXv-0>

# Usability Tests

## Key questions

- Why do people navigate the website the way that they do?
- What are they trying to do?
- Identify pain points using navigation.

## Pain points from the NSA website

- “On the mobile version, the contact NSA was hidden under ‘Helpful links’ and it wasn’t immediately obvious where to find the contact page. I had to scroll all the way down followed by trying to figure out where the contact page was actually located. The most important pages should not be hidden within sub-menus and also should be easy to access and minimise the effort it takes to get to that page.”
- “The colours were inconsistent and it was hard to read some of the text due to the poor contrast between the text and the background colour.”
- “All the Cybersecurity links were scattered all over the place instead of being placed in a centralised location where all the relevant links are in one place. Users should be able to access everything they need from one centralised location.”
- “I rely on intuition and the navigation should be designed in a way that caters to the intuition of users.”

Spreadsheet link:

<https://docs.google.com/spreadsheets/d/18GLHCKjB7klvIRSqpKVc3C1Ge-44OIKvmO0CZeujLo/edit#gid=0>

User Recordings Google Drive link:

<https://drive.google.com/drive/u/0/folders/1ySOoVI-a6UX31fdffaph1jxHrGmdRyuq>

# IA Card Sorting

To assess the navigation, we used card sorting to take inventory of the menu navigation.

## NSA



## Further Information



## Security & Guidance



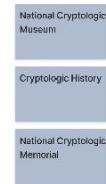
## News Room



## Jobs

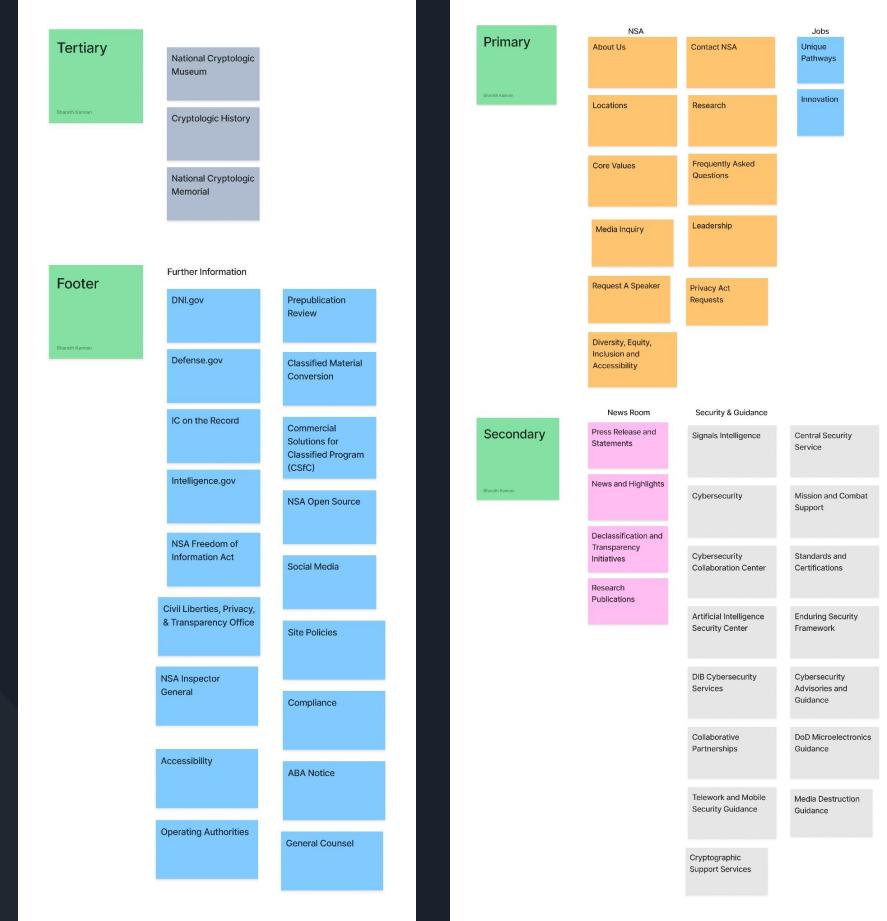


## Our History



FIGJAM Link: [https://www.figma.com/file/MtD0M9mx1Q34a1Mm4CJ3fQ/NSA-FigJAM-File?type=whiteboard&node\\_id=0-1&t=8yPMGWY3NBLNjuEj-0](https://www.figma.com/file/MtD0M9mx1Q34a1Mm4CJ3fQ/NSA-FigJAM-File?type=whiteboard&node_id=0-1&t=8yPMGWY3NBLNjuEj-0)

# IA Card Sorting



# Card Sorting



Following on from the card sorting activity, I decided to merge some categories together to simplify the navigation process and created some new categories. By reducing clutter and simplifying it, this helps to build a site map that is more organised and easy to follow for users.

I noticed the footer was cluttered with too many links and this makes it overwhelming. It also became apparent that there was no clear personality or branding behind the NSA. I decided to adopt a simple approach of merging related items together so they can be accessed from one centralised location.

FIGJAM Link:

<https://www.figma.com/file/MtD0M9mx1Q34a1Mm4CJ3fQ/NSA-FigJAM-File?type=whiteboard&node-id=0-1&t=8yPMGWY3NBLNjuEj-0>

# Sitemap



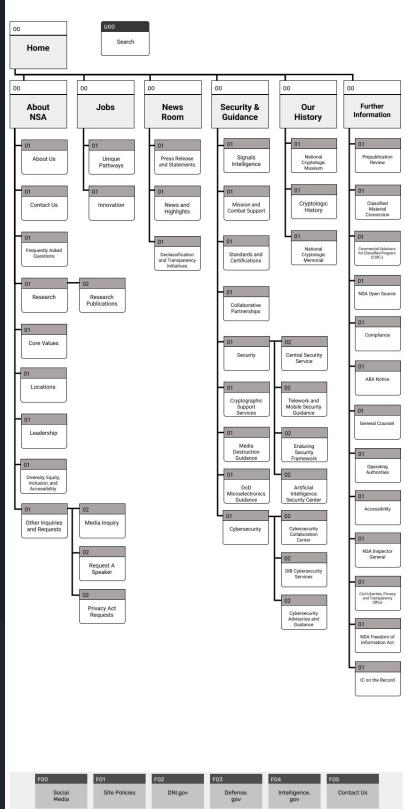
The NSA website was cluttered with too many options in the navigation bar, the overall experience felt overwhelming, confusing and disorganised. I planned to simplify the site map whilst also developing a new brand voice with the goal of making the visual design more friendly, and visually stimulating.

Following on from the card sorting activity, I grouped like for like items together, and created new categories. By merging some of the navigation items together, I was able to build a site map that was more organised and simpler to follow whilst also including the necessary information in the header navigation bar. The sitemap can be viewed on the Figma link below.

## FIGMA SiteMap:

[https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node\\_id=85-308&mode=design&t=QlII8tEJ7a13sxb6-0](https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node_id=85-308&mode=design&t=QlII8tEJ7a13sxb6-0)

# Sitemap



Following on from the site map, we will be using this to construct our new navigation design for the NSA website where screenshots and the prototype can be viewed on the next slide. When designing the navigation, I applied the LATCH principle of displaying the pages in alphabetical order to make it look cleaner and more organised.

Naturally, we are more likely to want to navigate through when subconsciously, there is organisation to the navigation menu.

FIGMA link to full SiteMap:

[https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node\\_id=85-308&mode=design&t=QlII8tEJ7a13sxb6-0](https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node_id=85-308&mode=design&t=QlII8tEJ7a13sxb6-0)

# New NSA Navigation Design - Desktop

The screenshot shows the desktop version of the National Security Agency's website. At the top left is a small icon of a document with a magnifying glass. To its right, the text "National Security Agency" is displayed in a white sans-serif font. Below this header is a dark navigation bar containing links for "Home", "About NSA", "Contact Us", "Further Information", "Jobs", "News", "History", and "Security & Guidance". The main content area features a large, bold, white text block with three lines of text: "Generating foreign intelligence insights.", "Applying Cybersecurity Expertise.", and "Securing the future.". Below this text block is a smaller, lighter-colored text block stating, "We leverage our advantages in technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems." At the bottom of the page is a footer section with a white background. It includes links for "Contact Us", "Defense.gov", "DOI.gov", "Intelligence.gov", and "Site Policies". Below these links are social media icons for Facebook, X (Twitter), YouTube, LinkedIn, and Instagram.

Figma Link to Design / Prototype:

<https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=198-85452&mode=design&t=RBFq4ijQ4hMxV03c-0>

# Homepage Wireframes (Desktop)

National Security Agency

Generating foreign intelligence insights.  
Applying Cybersecurity Expertise.  
Securing the future.

Wor(l)d-class technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems.

Search

Experience NSA

## Our Mission

### Cybersecurity

NSA Cybersecurity prevents and mitigates threats to U.S. national security systems with a focus on the Defense Industrial Base and the information of our weapons systems and critical infrastructure. NSA's Collaboration Center, NSA partners with allies, private industry, academics, and researchers to strengthen awareness and collaboration to advance the state of cyberspace.

Learn More >

### Signals Intelligence

NSA provides Foreign Signals Intelligence (SIGINT) to our nation's policymakers and military forces. SIGINT plays a vital role in our national security by providing America's leaders with critical information they need to defend our country, save lives, and advance U.S. goals and interests globally.

Learn More >

## Aligning for Success

### Research

NSA invests in a world-class workforce and partnerships with academia and industry to deliver capabilities that secure the nation's future.

Learn More >

### Academics

NSA partners with schools to help cultivate the next generation of experts in cryptology, engineering, math, language and analysis to protect the nation.

Learn More >

### Business

NSA has a wide range of requirements and we need industry's help in fulfilling our mission.

Learn More >

We're hiring! Make the switch to NSA to pursue a career you're passionate about.

Apply Now

## News & Highlights

Urgent warning from multiple cybersecurity organizations on...

Urgent warning from multiple cybersecurity organizations on...

Urgent warning from multiple cybersecurity organizations on...

## National Cryptologic Museum

NSA provides foreign signals intelligence (SIGINT) to our nation's policymakers and military forces. SIGINT plays a vital role in our national security by providing America's leaders with critical information they need to defend our country, save lives, and advance U.S. goals and alliances globally.

Explore Museum

Contact Us   Defense.gov   DNI.gov   Intelligence   NSA Web

Figma Link to Desktop Wireframe Homepage:

<https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=366-2825&mode=design&t=UlicfqXgLtQPNF2O-0>

# Header / Footer Navigations (Desktop)

About Us  
Core Values  
Diversity, Equity, Inclusion, and Accessibility  
Frequently Asked Questions  
Leadership  
Locations  
Other Inquiries and Requests  
Research

ABA Notice  
Accessibility  
Republication Review  
Compliance  
Commercial Solutions for Classified Program (CSfC)  
Classified Material Conversion  
Civil Liberties, Privacy and Transparency Office  
General Counsel  
IC On The Record  
NSA Freedom of Information Act  
NSA Inspector General  
NSA Open Source  
Operating Authorities

Signals Intelligence  
Mission and Combat Support  
Standards and Certifications  
Collaborative Partnerships  
Security  
Cryptographic Support Services  
Media Destruction Guidance  
DoD Microelectronics Guidance  
Cybersecurity

**Declassification and Transparency Initiatives**

**News and Highlights**

**Press Release and Statements**

**Cryptologic History**

**National Cryptologic Memorial**

**National Cryptologic Museum**

**Innovation**

**Unique Pathways**

[Home](#)   [About NSA](#)   [Contact Us](#)   [Further Information](#)   [Jobs](#)   [News](#)   [History](#)   [Security & Guidance](#)

Contact Us

Defense.gov

DNIgov

Intelligence.gov

Site Policies



Figma Link to Header / Footer Navigations:

<https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=366-2825&mode=design&t=UlicfqXgLtQPNF2O-0>

# Homepage & Navigation Re-design - Web Version

The screenshot shows the NSA homepage with a dark background and white text. At the top left is the NSA logo. Below it is the agency's name, "National Security Agency". A large banner in the center contains the slogan: "Generating foreign intelligence", "Applying Cybersecurity Expertise", and "Securing the future." Below the banner, a sub-slogan states: "We leverage our advantages in technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems." To the right of the banner is a sidebar with links to "About Us", "Core Values", "Diversity, Equity, Inclusion, and Accessibility", "Frequently Asked Questions", "Leadership", "Locations", "Other Inquiries and Requests", and "Research". Further down the page are links to "ABA Notice", "Accessibility", "Prepublication Review", "Compliance", "Commercial Solutions for Classified Program (CSfC)", "Classified Material Conversion", "Civil Liberties, Privacy and Transparency Office", "General Counsel", "IC On The Record", "NSA Freedom of Information Act", "NSA Inspector General", "NSA Open Source", and "Operating Authorities". At the bottom of the page are links to "Contact Us", "Defense.gov", "DNgov", "Intelligence.gov", and "Site Policies", along with social media icons for Facebook, X, YouTube, LinkedIn, and Instagram.

National Security Agency

Home About NSA Contact Us Further Information Jobs

## Generating foreign intelligence Applying Cybersecurity Expertise Securing the future.

We leverage our advantages in technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems.

Search

Experience NSA

Contact Us Defense.gov DNgov Intelligence.gov Site Policies

[Facebook](#) [X](#) [YouTube](#) [LinkedIn](#) [Instagram](#)

ABA Notice  
Accessibility  
Prepublication Review  
Compliance  
Commercial Solutions for Classified Program (CSfC)  
Classified Material Conversion  
Civil Liberties, Privacy and Transparency Office  
General Counsel  
IC On The Record  
NSA Freedom of Information Act  
NSA Inspector General  
NSA Open Source  
Operating Authorities

Figma Link to Homepage and Navigation Re-design

<https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=366-2825&mode=design&t=UlicfqXgLtQPNF2O-0>

# Homepage & Navigation Re-design - Mobile Version

The image displays four mobile screenshots of the NSA website's homepage and navigation re-design. The first screenshot shows the homepage with a dark background, featuring a large green call-to-action button, a search bar, and a 'Experience NSA' button. The second screenshot shows a vertical navigation menu with categories like Home, About NSA, Contact Us, Further Information, Jobs, News, History, and Security & Guidance. The third and fourth screenshots show expanded versions of the 'Further Information' and 'Security & Guidance' sections respectively, with sub-options like Core Values, Diversity, Equity, Inclusion, and Accessibility; Frequently Asked Questions; Leadership; Locations; Other Inquiries and Requests; Research; Contact Us; and various security-related links.

National Security Agency Menu

Generating foreign intelligence insights. Applying Cybersecurity Expertise. Securing the future.

We leverage our advantages in technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems.

Search Search icon

Experience NSA

Contact Us  
Defense.gov  
DNIgov  
Intelligence.gov  
Site Policies

Home Home icon

About NSA

Contact Us

Further Information

Jobs

News

History

Security & Guidance

Home Home icon

About NSA

About Us

Core Values

Diversity, Equity, Inclusion, and Accessibility

Frequently Asked Questions

Leadership

Locations

Other Inquiries and Requests

Research

Contact Us

Further Information

Jobs

News

History

Security & Guidance

Home Home icon

About NSA

Contact Us

Further Information

Jobs

News

History

Security & Guidance

Signals Intelligence

Mission and Combat Support

Standards and Certifications

Collaborative Partnerships

Security

Cryptographic Support Services

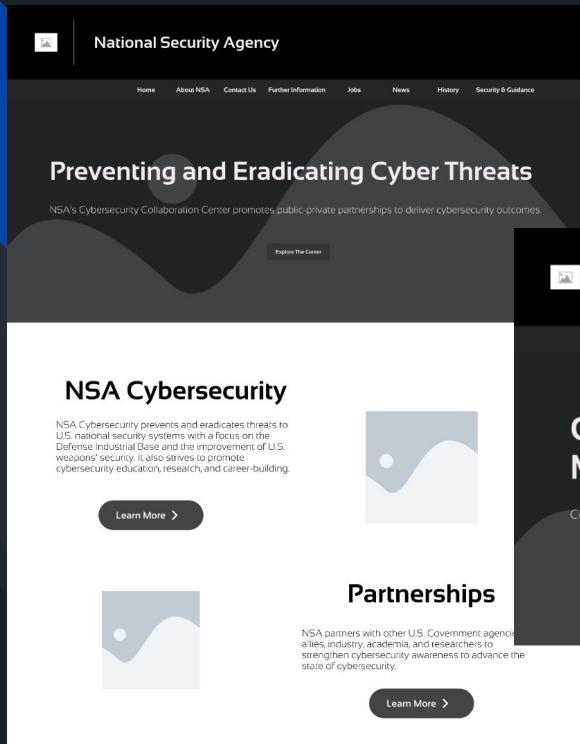
Media Destruction Guidance

DoD Microelectronics Guidance

Cybersecurity

Figma Link to Homepage and Navigation Re-design  
<https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=366-2825&mode=design&t=UlicfqXgLtQPNF2O-0>

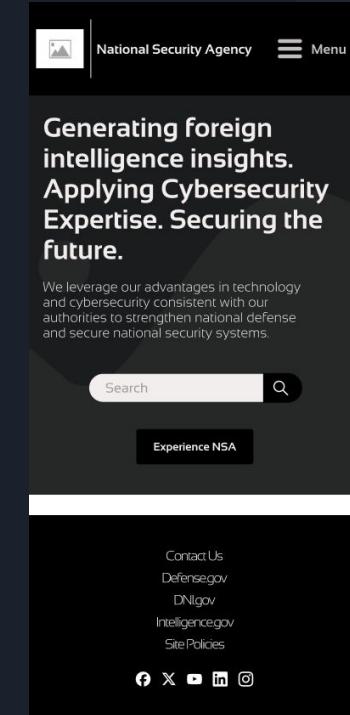
# NSA Prototype Web Page and Mobile Page



The prototype web page features a dark header with the NSA logo and "National Security Agency". Below the header is a navigation bar with links: Home, About NSA, Contact Us, Further Information, Jobs, News, History, and Security & Guidance. The main content area has a large dark banner with the title "Preventing and Eradicating Cyber Threats" and a subtext: "NSA's Cybersecurity Collaboration Center promotes public-private partnerships to deliver cybersecurity outcomes." A "Explore The Center" button is located at the bottom right of the banner. Below the banner, there are three sections: "NSA Cybersecurity" (with a "Learn More" button), "Partnerships" (with a "Learn More" button), and "Collecting & Analyzing our Adversaries' Moves" (with a "Learn More" button). Each section includes a small graphic icon.



This view of the prototype shows a different layout. It features a dark header with the NSA logo and "National Security Agency". Below the header is a navigation bar with links: Home, About NSA, Contact Us, Further Information, Jobs, News, History, and Security & Guidance. The main content area has a large dark banner with the title "Collecting & Analyzing our Adversaries' Moves" and a subtext: "Consistent with our authorities, NSA collects foreign intelligence to inform policymakers and defeat adversaries." A "Learn More" button is located at the bottom right of the banner. The overall design is clean and modern, using a dark color palette with white and light gray text.

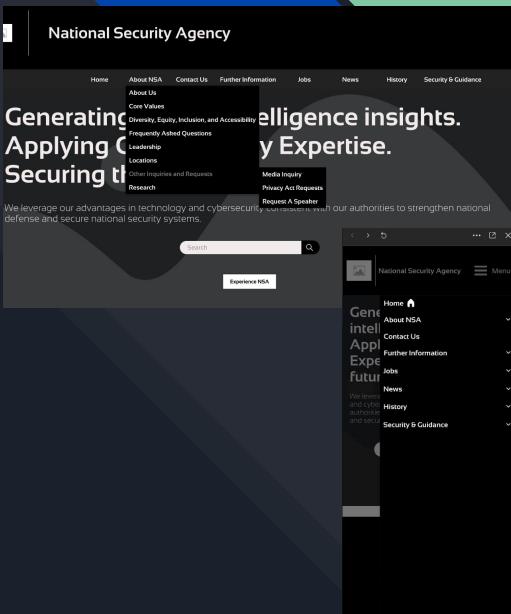


The prototype mobile page has a dark header with the NSA logo and "National Security Agency" next to a "Menu" icon. The main content area features a large dark banner with the title "Generating foreign intelligence insights. Applying Cybersecurity Expertise. Securing the future." and a subtext: "We leverage our advantages in technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems." Below the banner is a search bar with a magnifying glass icon and a "Experience NSA" button. At the bottom, there is a footer with links: Contact Us, Defense.gov, DNI.gov, Intelligence.gov, Site Policies, and social media icons for Facebook, X, YouTube, LinkedIn, and Instagram.

Figma Link to Prototype:

<https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node-id=366-2825&t=3g40bDjfoqp3gmk-0>

# 5-Second User Test



- For this test, we focused on testing the navigations for both the mobile and web prototype of the homepage.
- User tests resulted in an overall success of usability with some feedback to address for the high-fidelity prototype design.

## OBJECTIVES

- Goal is for all of the users to find the page they want through the navigation menu.

## EQUIPMENT

- The usability test was done via Microsoft Teams meeting.

## PARTICIPANTS

- At least 2 participants for both the desktop and mobile version of the NSA prototype. Anyone who's looking for the Cybersecurity page.

## PROCEDURE

- Participants were asked to navigate between the menus and report any issues with finding the page.
- The test begins when the user is at the homepage for the NSA website.
- Once the test finished, user was asked to give feedback for the iteration.

# 5-Second User Test (Continued)

## FEEDBACK

- Navigation menu could be made simpler or have fewer options to go through (Is history needed on the menu or relevant?)
- The stock imagery could be improved through using licensed imagery and one that portrays the vibe about NSA
- Do we need the 'Home' button on the menu when we can click on the NSA logo to return to the homepage.
- The navigation menu for the desktop should have arrow symbols to indicate to the user that there's a secondary / tertiary menu.
- The button sizes should be consistent and similar size to each other when displayed on the same page as the user is scrolling down.
- Apart from the above points, users thought the navigation was well designed and easy to navigate around with minor issues.

# Homepage Iteration

National Security Agency

About NSA ▾ Contact Us Further Information ▾ Jobs ▾ News ▾ History ▾ Security & Guidance ▾

## Generating foreign intelligence insights. Applying Cybersecurity Expertise. Securing the future.

We leverage our advantages in technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems.

Search

Experience NSA

Contact Us Defense.gov DNI.gov Intelligence.gov Site Policies

[Facebook](#) [X](#) [YouTube](#) [LinkedIn](#) [Instagram](#)

I added in the arrows following the feedback from the 5-second user testing. This helps make it more clear to the user that there are secondary and tertiary menus hidden within the navigation header. The button sizes will be similar and consistent in sizing once we develop the high-fidelity prototype of the desktop and mobile version.

# NSA - UI Style Tile

For the re-branded colour design, I decided to incorporate a blue colour scheme with different shades of blue to represent the colours for the National Security Agency. The original website has colours of green, purple, along with blue. For the redesign, I wanted to go with a consistent colour scheme and portraying a more corporate vibe. The original colours on the website came across as more of a video game vibe and I needed to incorporate a font that portrays the corporate and government vibe to enable users to perceive the NSA brand more seriously.

Figma link to Style Tile:

<https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=98-740&mode=design&t=rXZ177EqRpVF3l68-0>

# Visual design to Homepage Composition (Style Tile)

National Security Agency

Home About NSA Contact Us Further Information Jobs News History Security & C

Experience NSA Experience NSA

Text Footer Text Footer

Text Navigation Header Text Navigation Header

X YouTube LinkedIn Instagram Facebook

X YouTube LinkedIn Instagram Facebook

Cybersecurity

Cybersecurity

National Security Agency / Central Security Service

National Security Agency / Central Security Service

Contact Us Defensegov DNgov Intelligencegov Site Policies

Facebook X YouTube LinkedIn Instagram

**Generating foreign intelligence insights.  
Applying Cybersecurity Expertise.  
Securing the future.**

We leverage our advantages in technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems.



Figma link to the Visual Design:

<https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node-id=258-552&t=XfMRzFFhH0zSSNJU-0>



# Responsive Design

Bharath Kannan

# Style Guide & Branding

## Style Guide

National Security Agency

### Color



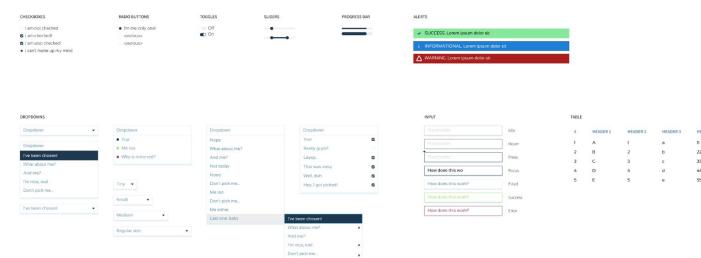
### Typography



### Iconography



### Controls



For the Style Guide, I decided to incorporate a colour scheme of blue colours for the primary colours and green colours for the secondary colours along with grayscale colours and black and white depending on the contrast between the text and the background. I have kept the font consistent and applied a modern government corporate feel to it.

Additionally, I also wanted to use a typography that is consistent and portrays the government vibe, specifically the 'Sansations' font that conveys a government feel and portrays exactly what the NSA is about. The colour scheme I used is also consistent with the logo for the NSA and that's the style I was going after with this re-design.

Stock Images I have used from a combination of the existing NSA website as well as royalty free stock images like UnSplash and Pexels for imagery.

## Social Media Iconography



Figma link to the full Style Guide for NSA:  
<https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node-id=485-2007&t=LFmLf44CHg2dNZe-0>

# Hi-Fidelity Wireframes with Style Guide Applied

National Security Agency

Generating foreign intelligence insights. Applying Cybersecurity Expertise. Securing the future.

We leverage our advantages in technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems.

Our Mission

Cybersecurity

Signals Intelligence

Learn More >

Learn More >

National Security Agency

Generating foreign intelligence insights. Applying Cybersecurity Expertise. Securing the future.

We leverage our advantages in technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems.

Search

Experience NSA

Contact Us

Home > Contact NSA

NSA offers several ways to contact the agency. For faster service, use the web form option.

By mail:  
National Security Agency  
NSA Security Research Center  
Fort George G. Meade, MD 20755-6000

By Phone: 301-688-5319  
Applicants: 1-844-424-4737 (1-844-ICHIRES)

By web form below, choose the office or program related to your inquiry.

\*Recipient: Choose from the dropdown list:

Your Name: \_\_\_\_\_

Your Email: \_\_\_\_\_

Subject: \_\_\_\_\_

Message: \_\_\_\_\_

Contact Me: A Response Is Requested.

Submit

Contact Us  
Defenselab  
DNIgov  
Intelligence  
Site Policies

f x i n @

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Contact Us  
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Site Policies

f x i n @

Desktop Redesign Figma link:

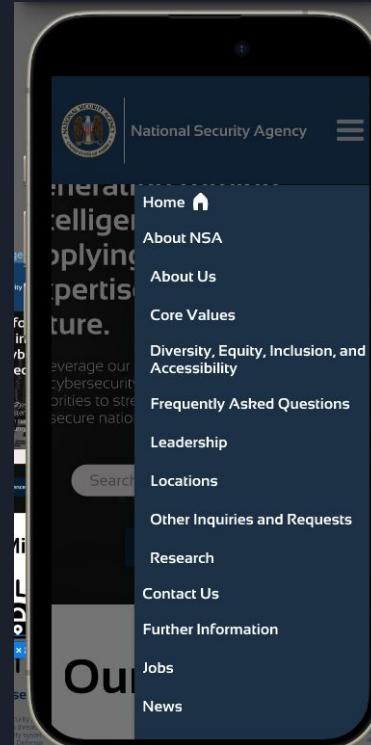
<https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node-id=532-3216&t=4NxdWZQ3fdR1edKr-0>

Mobile Redesign Figma link:

<https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node-id=532-3217&t=4NxdWZQ3fdR1edKr-0>

# Hi-Fidelity Prototype with Style Guide Applied

The desktop view of the National Security Agency website features a dark blue header with the NSA logo and the text "National Security Agency". Below the header is a navigation bar with links: Home, About NSA, Contact Us, Further Information, Jobs, News, History, and Security & Guidance. A large banner in the center contains the text "Generating intelligence insights. Applying expertise. Securing the future." and a subtext about leveraging advantages in technology and cybersecurity. A sidebar on the left lists "About Us", "Core Values", "Diversity, Equity, Inclusion, and Accessibility", "Frequently Asked Questions", "Leadership", "Locations", "Other Inquiries and Requests", "Research", "Media Inquiry", and "Privacy Act Requests". At the bottom is a search bar and a "Experience NSA" button.



Figma Link to Hi-Fidelity Prototype (Desktop Version):

[https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node\\_id=672-5228&t=S1I08c6YXMxVV4Bs-0](https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node_id=672-5228&t=S1I08c6YXMxVV4Bs-0)

Figma Link to Hi-Fidelity Prototype (Mobile Version):

[https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node\\_id=672-5752&t=S1I08c6YXMxVV4Bs-0](https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node_id=672-5752&t=S1I08c6YXMxVV4Bs-0)



# Interaction Design

Bharath Kannan

# Usability Testing Plan

## PRODUCT WE ARE TESTING

Navigation of the NSA Redesigned Website

## OBJECTIVES

- For users to find the Cybersecurity and Signals Intelligence page and report any challenges or difficulties finding the target page

## EQUIPMENT

- Usability test done via Zoom meeting and recorded

## LOCATION & DATES

- Online on 7th June 2024 via Zoom link

## PARTICIPANTS

- At least 2 participants will be testing the prototype for both the Web and Mobile versions. Anyone who has an interest in National Security or working in Cybersecurity or related fields to find out information.

## PROCEDURE

1. Participants will be asked to navigate the NSA website and look for the Cybersecurity pages
2. The test starts at the NSA homepage where they have a navigation menu along with other buttons to choose from
3. Once task is completed or incomplete, participants are also asked to provide feedback on what can be improved for the website design in the comments section.

# Testing Prototype and Navigation

<b>AUTHOR</b> BHARATH KANNAN	<b>CONTACT DETAILS</b> bazkannan96@gmail.com	<b>FINAL DATE FOR COMMENTS</b> 7th June 2024
<b>PRODUCT UNDER TEST</b> National Security Agency Responsive Web Design Prototype.	<b>TEST OBJECTIVES</b> <ul style="list-style-type: none"><li>The user should be able to find the Cybersecurity and Signals Intelligence pages with ease</li><li>The user should report any challenges or difficulties finding the target webpage</li><li>The user should report any challenges or difficulties with the navigation menu's</li><li>The user should comment on the colour scheme and use of colour in the website re-design</li><li>The user should be able to find exactly the webpage they're looking for just from the navigation menu</li><li>The user should be able to access the website on their mobile phone device</li></ul>	<b>PARTICIPANTS</b> <ul style="list-style-type: none"><li>Between 5-10 participants will be testing the prototype for both the Website and Mobile prototype of the NSA website. Anyone who has an interest in National Security or working for government related roles is a good candidate for testing the product.</li></ul> <b>TEST TASKS</b> <ol style="list-style-type: none"><li>To test if website meets accessibility guidelines</li><li>To test if webpages are easy to find</li><li>To test if the contact information can easily be found</li><li>To test if the colour scheme and font use is appropriate for the website</li><li>To test the typography, iconography, use of imagery on the NSA website</li><li>To test whether the website is accessible on mobile devices as well as desktop</li><li>To test if the navigation menu works as intended</li><li>To test if the correct labels have been used in the navigation menu</li></ol>
<b>BUSINESS CASE</b>  The business goals of this product is to see whether the re-design helps users meet their intended objectives whilst browsing through the updated website. The main criticism of US-based websites is the accessibility and poor use of brand imagery, so we want to test that the target user is able to meet their objectives with re-design.	<b>EQUIPMENT</b> <ul style="list-style-type: none"><li>Usability test will be done via Zoom meeting and recorded.</li></ul>	<b>LOCATION &amp; DATES</b>  The test will take place online via Zoom calls and the results will be recorded online via video recordings whilst the user documents their findings in the recording.
<b>PROCEDURE</b>  <div style="display: flex; justify-content: space-around;"><div style="text-align: center;"><p>Participants will be asked to navigate the NSA website and look for the pages 'Cybersecurity' and 'Signals Intelligence' from the homepage</p></div><div style="text-align: center;"><p>Participants will be asked to find and go to the 'Contact' page from the Homepage</p></div><div style="text-align: center;"><p>Participants will be asked to find the sub-menu's in the About NSA' part of the navigation menu</p></div><div style="text-align: center;"><p>Participant will be asked to return to the homepage from the 'Contact Us' page or the 'Cybersecurity' page'</p></div><div style="text-align: center;"><p>Participant will be asked to carry out tasks on both Mobile and Web Prototypes and once completed, will be asked to provide feedback for the website iteration.</p></div></div>		

Link to FIGJAM Board:  
<https://www.figma.com/board/Qkts5oKI8hwIRRHbHuFrNo/NSA-Government-Agency?node-id=0-1&t=ZsAmVjDN5mSsJZI3-0>

# Usability Testing Plan - Reports

## USER ONE - Feedback

Google Drive link to Recorded User Testing:

[https://drive.google.com/drive/folders/1Pf2VL3rvX-VCisVsyN5kdL-shbAVhnQ ?usp=sharing](https://drive.google.com/drive/folders/1Pf2VL3rvX-VCisVsyN5kdL-shbAVhnQ?usp=sharing)

### DESKTOP

- Secondary menu of navigation does not work well on hover
- Icons are oversized
- Consider adding a drop shadow effect for blog post cards
- Spacing from the logo to the company name is not equally spaced
- Some navigation links are not working as intended

### MOBILE

- Spacing needs to be improved with more white space to feel relaxed in layout, less cramping
- Padding needs to be applied left and right of the text, at the moment it is too wide. Aim for 30px
- The header needs to be amended for spacing to allow for the camera on the iPhone/Android devices.
- Darken the navigation menu with a more intense blue hue/
- Icons are oversized
- The images used are pixelated, replace with high quality stock imagery
- There needs to be equal width on the sides
- Enable horizontal scrolling in the prototyping
- Frames and groups need to be equally aligned and centred properly

# Usability Testing Plan - Reports

## USER TWO - Feedback

Google Drive link to Recorded User Testing:

[https://drive.google.com/drive/folders/1Pf2VL3rvX-VCisVsyN5kdL-shbAVhnQ  
?usp=drive\\_link](https://drive.google.com/drive/folders/1Pf2VL3rvX-VCisVsyN5kdL-shbAVhnQ?usp=drive_link)

### DESKTOP

- Add Chevrons to show the users where the dropdown menu's are
- Add Breadcrumbs to show users where they are on the website
- Fix the little gaps in the menu between the navigation and the dropdown
- Some links are not working as expected, check the prototype

### MOBILE

- Add padding in the menu - think of users with big fingers to improve accessibility
- Have colour hierarchy instead of padding with the menu's and sub-menu's
- Cybersecurity sub-menu needs a hyperlink to navigate to the Cybersecurity page

# Iteration High-Fidelity Prototype Based On Usability Tests



## CHANGES MADE

- Colour coded sub-menu's to differentiate hierarchy of primary, secondary and tertiary menu's.
- Added in Chevron's on the desktop navigation to highlight to users that a dropdown menu is present
- Spacing and padding added
- Added breadcrumbs label on the pages
- Amended the hyperlinks on the menu navigation
- Added drop shadow effects to some layers to make it pop more
- Added a darker shade of blue hue to the navigation menu on mobile
- Fixed spacing between NSA logo and website title text

Figma Link to Iterated Hi-Fidelity Prototype (Desktop Version):

<https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node-id=730-3374&t=JVvv1tTwVMyPaKcZ-0>

Figma Link to Iterated Hi-Fidelity Prototype (Mobile Version):

<https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node-id=730-2198&t=JVvv1tTwVMyPaKcZ-0>

# Reflection & Final Conclusion



- Spent more time than I needed to with the Card Sorting and the Sitemap. This is the foundation of a website with navigation. It was interesting to hear user perspectives on the NSA website when conducting heuristic evaluations and user interviews regarding the accessibility and navigation of the NSA website.
- Redesigning a website generally tends to be easier than trying to create an entirely new website from scratch. However, it can also be difficult at the same time since we are trying to simplify it even further which sometimes requires thinking outside of the box.
- We picked a government site where we had an interest in Cybersecurity related topics and also saw an opportunity for improvement with the existing website and navigation. We found the colours could be improved significantly to make it more modern looking. It is challenging but also exciting being able to re-design a government website and that too within a short time span of 4 weeks.
- I've also learnt it's best practice to build a responsive design on mobile wireframes first before transitioning to Desktop to ensure consistency in spacing and padding.
- It was very useful having other existing government websites to refer to for inspiration, particularly government websites that are both well designed but also poorly designed so we can learn from the mistakes of other websites to improve our design.
- Branding often requires a lot of thought and experience in order to convey it effectively to your target audience. I found it quite challenging trying to ensure that the brand representation comes across to the audience as intended in the plan for branding guidelines. I find I am always learning new principles and concepts with guidelines and brand representation.
- If given more time to work on a similar project like this in the future, I would definitely give a lot more thought to the design and layout to ensure it captures the best interests of the target audience. Sometimes, I find it can be challenging to deliver a high quality product within a short timespan but also being aware that this is the challenges I very well could face when working on a project in the real world.