

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

Website chosen and to be re-designed



ational Security Agency/Central Security Service

About Press Room Careers History

Search NSA

Q

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 <u>Cybersecurity Collaboration Center</u>,



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

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=pbm1Rqadznf9Hyig-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 find 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

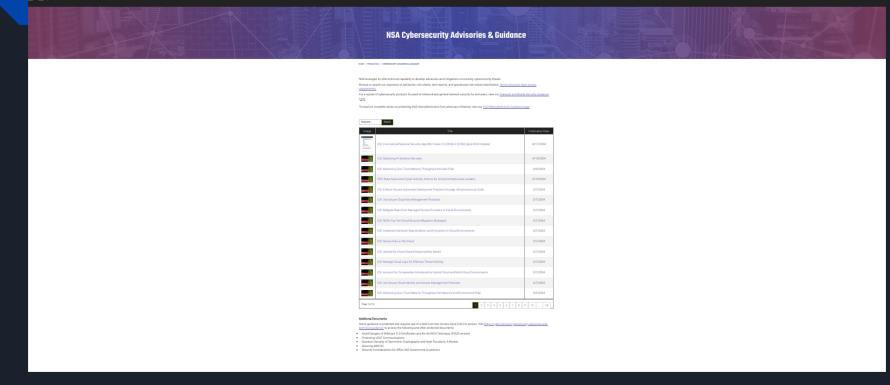
Why does Sarah Ann need to visit the NSA website?

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

National Security Agency/Central Security Service

About Press Room Careers History Breat NBR



Webpages that the user visits Our Offerings

Our Offerings

DIB	Collaborative	Standards and	Cybersecurity
Cybersecurity	Partnerships	Certifications	Academic
Services	NSA establishes	U.S. participation in	Outreach
NSA offers no-cost	collaborative	standards and	NSA invests in
cybersecurity services	relationships to	certifications secures	academic
to any company that	prevent, detect, and	emerging	partnerships to recruit,
has contracts with	defeat cyber	technologies and	train, equip, and retain
DoD or access to non-	adversaries targeting	empowers U.S.	the next generation of
public DoD	our nation's most	industry to shape the	diverse cybersecurity
information.	sensitive networks.	market.	professionals.
LEARN MERE	LEAFN MORE	LEABS PIORE	LEARS MERE



The Enduring Security Framework (ISF) 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 systems (NSS).

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



Webpages that the user visits NSA Cybersecurity Collaboration Center



NSA Cybersecurity Collaboration Center



Our Mission

The NSA Cybersecuity Collaboration Center (CCC) is how NSA scales intel-driven cybersecuity through open, collaborative partnerships. The CCC works with industry, interagency, and international partners to harden the U.S. Defense industrial Base, operationalize NSAs unique insights on nation-state cyber threats, jointly create mitigations guidance for emerging activity and chronic cybersecuity challenges, and accure 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. Threat Intelligence Collaboratio

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



Webpages that the user visits Preventing and Eradicating Cyber Threats





Frank B. Rowlett Awards

Each year, NSA recognizes the outstanding work of federal government organizations an individuals who significantly improved cybersecurity advancement in classified or unclas security-related areas.

Webpages that the user visits Contractor Protection

Contractor Protection



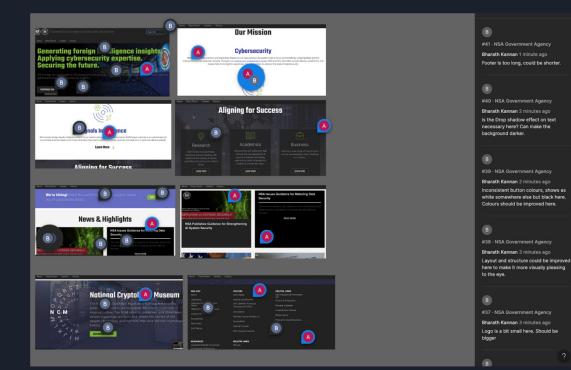
Threat Intelligence Collaboration

Intervise a voluntary mutually beneficial opter theat information sharing induction by with the NSA. Our team will establish a service collaboration channel with your opter thread analysis and share non-public Inters, and mitigate maticious opter activity. This chareed is also a away for your team to suserial quantities and thedback to findings instands to the thread intelligence we share directly book with us

1004.0179



Website Analysis



Figma link to Website Annotations: <u>https://www.figma.com/file/NvxEViYa4J2zLIrRNpvtyg/NSA-Government-Agency?type=design&node-id=0-1&mode=design&t=0Naa9XtjU2XIK6sf-0</u>

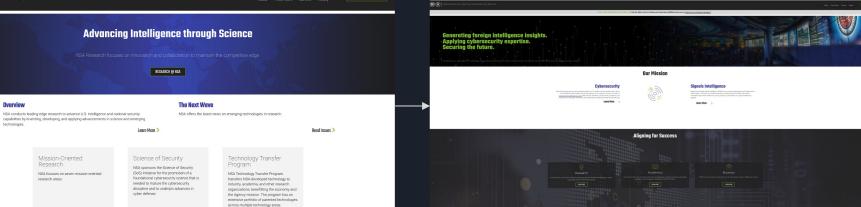


User Path

🛞 😥 | National Security Agency/Central Security Service -

Overview

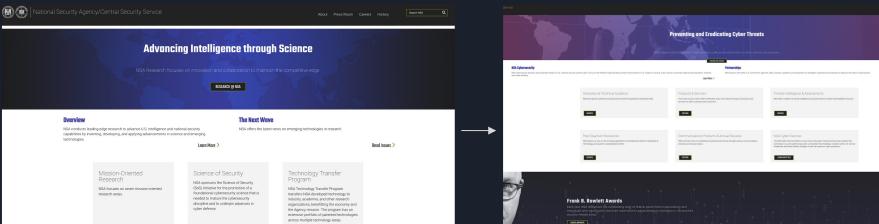
technologies.



Homepage > About > Research



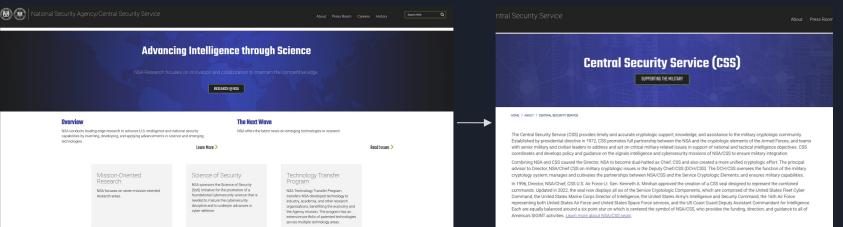
User Path



Homepage > About > Cybersecurity



User Path



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: https://www.nsa.gov/					
Heuristic		Rating		Comments	
Appearance/aesthetics: first impressions are in	Appearance/aesthetics: first impressions are important—they can make the difference between users staying or leaving your site				
Example	3	2	1		Baz
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:

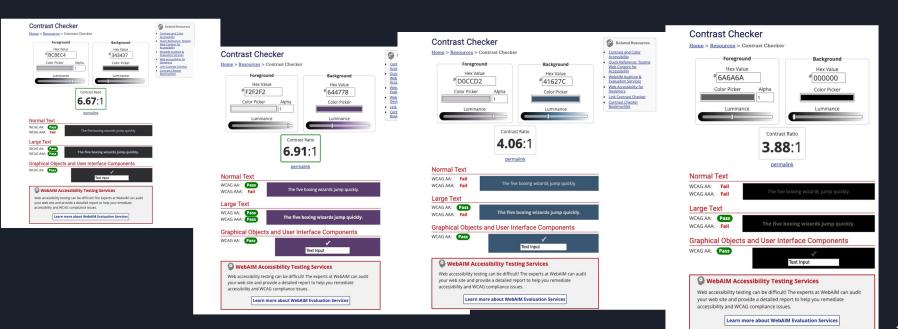
https://docs.google.com/spreadsheets/d/1df9qZYT3kLNwiLP51xCMIAXuSGWIZZgVCM5KP-Ovb3s/edit#gid=0

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





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

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/MtD 0M9mx1Q34a1Mm4CJ3fQ/NS A-FigJAM-File?type=whiteboard&node-

id=0-1&t=eNITOajiLI505Fwd-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. Lack of clear labeling for specific departments or offices.

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. 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.

Link to FIGJAM Board:

https://www.figma.com/file/MtD0M9mx1Q3 4a1Mm4CJ3fQ/NSA-FigJAM-File?type=whiteboard&node-id=0-1&t=eNITOajiLI505Fwd-0 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

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

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.

Participant says language used on website depends on background of the user. Some generations will find it more difficult to understand than others. Current generation won't find it too difficult but older generations will find it challenging to understand the terminology. The website's interface appeared cluttered and overwhelming, with too much information presented at once, leading to visual overload and difficulty in focusing on key elements or tasks.

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.

Guerilla Testing 2x2 Matrix



Link to FIGJAM Board: https://www.figma.com/fil e/MtD0M9mx1Q34a1Mm 4CJ3fQ/NSA-FigJAM-File?type=whiteboard&n ode-id=0-1&t=eNITOajiLI505Fwd-0

Usability and Heuristics Issues

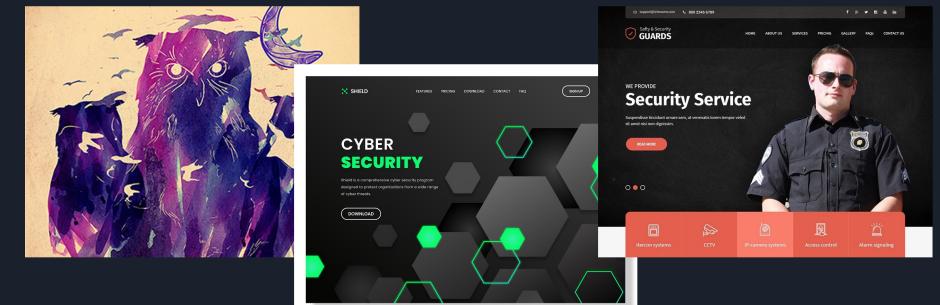
- I've listed a couple of notes and findings from the user interviews when they navigated through the website.
- Based on the findings from the Guerilla testing, users found issues with the visuals and aesthetics, felt like the website hadn't been updated in years and some parts of the website needed 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: <u>https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-</u> <u>Government-Agency?type=design&node-id=87-518&mode=design&t=XcIoWqKSN0kKGLkN-</u> <u>0</u>



Moodboard

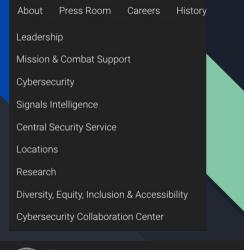
Link to the Moodboard for NSA: <u>https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=91-548&mode=design&t=XcIoWqKSN0kKGLkN-0</u>





Information Architecture

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.



National Security Agency/Central Security Ser

About Press Room Careers History

Notic Yes Room Careers History Name Name Cuttre Na Person Result About Cuttre Cuttre Na Person Constants Const		📴 🐨 📋 National Secur	ity Agency/Central Securi	ity Service	Search NSA
About Core Values And Address NSA Freedom of Information Classified Materiel Conversion Address NSA Freedom of Information Commercial Solutions for Commercial Solutions fo		About Press Room Careers Histo			
NSA Inspector General RELATED LINKS DNI gov Defense gov	curity Ser	About Leadership Cybersecurity Collaboration Center National Cryptologic Museum Contact NSA Accessibility ABA Notice	Core Values Operating Authorities Civil Liberties, Privacy, & Transparency Office Compliance Diversity, Equity, Inclusion, & Accessibility	NSA Freedom of Information Act Privacy Act Requests Request a Speaker Prepublication Review Media Inquiry	Classified Materiel Conversion Commercial Solutions for Classified Program (CSC) Cryptographic Support Services Media Destruction Guidance
Intelligence gov		RELATED LINKS DNI gov Defense.gov IC on the Record	NSA Inspector General		

Figma link to full analysis and annotations: https://www.figma.com/file/NvxEViYa4jzzLirknpviyg/noa-Government-Agency?type=aesign&noae-id=135-2696&mode=design&t=5VIDkzx67F1gcUXv-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."

Spreadsheet link: <u>https://docs.google.com/spreadsheets/d/liseLaccKjB7kViRsigpkVcsLace</u> <u>44OIKvmO0CZeu7Lo/edit#gid=0</u> User Recordings Google Drive link: <u>https://drive.google.com/drive/u/0/folders/1yS0oVI-</u> a6UX31fdffaph1jxHrGmdRyug

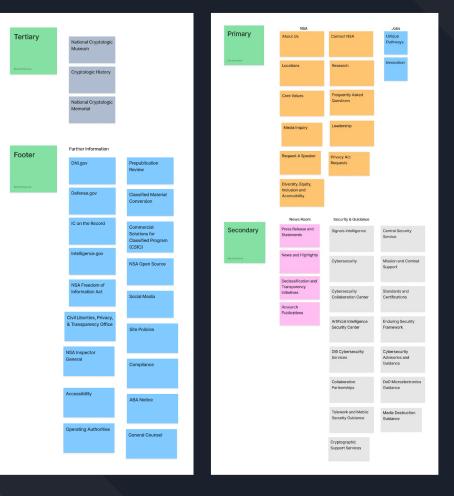
IA Card Sorting

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



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

IA Card Sorting



FIGJAM Link: https://www.figma.com/file/MtD0M9mx1Q34a1Mm4CJ3fQ/NSA-FigJAM-File?type=whiteboard&node-id=0-1&t=8yPMGWY3NBLNjuEj-0 33

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

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: <u>https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=85-308&mode=design&t=QIII8tEJ7a13sxb6-0</u>

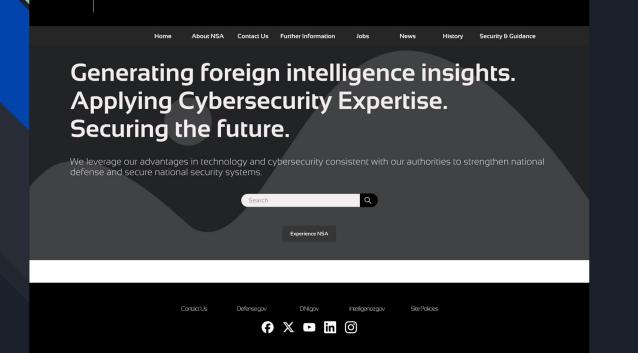
Sitemap



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: <u>https://www.figma.com/file/NvxEViYa4J2zLIrRNpvtyg/NSA-Government-Agency?type=design&node-id=85-308&mode=design&t=QIII8tEJ7a13sxb6-0</u>

New NSA Navigation Design - Desktop



National Security Agency

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

Homepage Wireframes (Desktop)

National Security Agency

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

No example and adversary is in incrimality and objectuarily considered with our authorities to expendition narrow entropy in the second sector by opposite the second seco

NSA Cybersecurity prevents and redicates threas to US national security systems with a focus on the Defense Industrial Base and the improvement of our weapon's security. Through our <u>"Obsersecurity</u> <u>Collaboration Center</u>, NSA partners with alles, private industry, academics, and researchers to strengthen awareness and collaboration to advance the state of cybersecurity.



Learn More >



Signals Intelligence

NSA provides foreign signals intelligence (SICINT) to our nation's policymatters and military forces. SICINT plays a virial 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 aliances olabaliv.







NSA provides foreign signals intelligence (SIGINT) to our nation's policymaters and military forces SIGINT plays a wital role in our national security by providing Amencia's leaders with initial information they need to defend our country, save lives, and advance US, goals and alliances advantuments and advance US. goals and alliances advantuments and advances advances and alliances advances advances advances advances and alliances advances advances

Gradis Dénegov DYgov kelgenegov Sleftvi G 🗶 🖸 in 🧿

Explore Museum

Figma Link to Desktop Wireframe Homepage:

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

Header / Footer Navigations (Desktop)

About Us	ABA Notice			Signals Intell	igence			Declase	sification a	nd T	ransparency Initiativ	
Core Values	Accessibility			Mission and	Combat Support			Decias	Sincation a			
Diversity, Equity, Inclusion, and Accessibility	Prepublication Review		Standards an			News and Highlights						
Frequently Asked Questions		Compliance Commercial Solutions for Classified Program (CSfC)		Collaborative Partnerships								
Leadership		terial Conversion	grain (CSIC)	Security				Press Release and Statements				
Locations		Privacy and Transparency	Office	Cryptographi	c Support Services							
Other Inquiries and Requests	General Counsel IC On The Record		Media Destruction Guidance		Cr	Cryptologic H		History		Innovation		
Research			DoD Microele	ectronics Guidance		prolog	ic motory	listory				
	NSA Freedom	of Information Act		Cybersecurity	y	Na	ational (Cryptologi	c Memoria		Unique Pathways	
	NSA Inspecto											
	NSA Open So					Na	ational (Cryptologi	c Museum			
	Operating Aut	thorities										
	Home	About NSA	Contac	Us Furth	er Information	Jot	os	News	History	Sec	urity & Guidance	
		Contact Us	Defense:	201	DNI.gov	Intollia	ence.qov	Site Polici	00			
		Contact Os	Derense	900	DINI.gov	nuenigi	ence.gov	SILEFOIL	25			
				G X	D in	(O)						
						\mathbf{O}						

Figma Link to Header / Footer Navigations:

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

Homepage & Navigation Re-design - Web Version

National Security Agency About Us Core Values Contact Us Further Information Diversity, Equity, Inclusion, and Accessibility About NSA Jobs Frequently Asked Questions Generating foreign intelligenc Leadership **Applying Cybersecurity Exper** Locations Other Inquiries and Requests Securing the future. Research We leverage our advantages in technology and cybersecurity consistent with our authorities to strengthen national defense and secure national security systems. Q Experience NSA

Contact Us DNLaav Site Policies Defense.cov Intelligence.gov



Figma Link to Homepage and Navigation Re-design

https://www.figma.com/file/NvxEViYa4J2zLIrRNpvtyg/NSA-Government-Agency?type=design&node-id=366-2825&mode=design&t=UlicfqXgLtQPNF2O-0

ABA Notice Signals Intelligence Accessibility Mission and Combat Support 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

Standards and Certifications Collaborative Partnerships Security Cryptographic Support Services Media Destruction Guidance DoD Microelectronics Guidance Cybersecurity

Homepage & Navigation Re-design - Mobile Version

 \sim

~

 \sim

×

 \sim

Home 🍙



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.

α Experience NSA Contact Us Defense.gov DNI.gov Intelligence.gov

Site Policies f 🕨 in 🔿

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

Home 🔒

Home 🔒 About NSA About NSA About Us Contact Us Core Values Further Information Diversity, Equity, Inclusion, and Jobs Accessibility News Frequently Asked Questions History Leadership Security & Guidance Locations Signals Intelligence Other Inquiries and Requests Mission and Combat Support Research Contact Us Standards and Certifications Further Information Collaborative Partnerships Jobs Security News Cryptographic Support Services History Media Destruction Guidance Security & Guidance DoD Microelectronics Guidance Cybersecurity

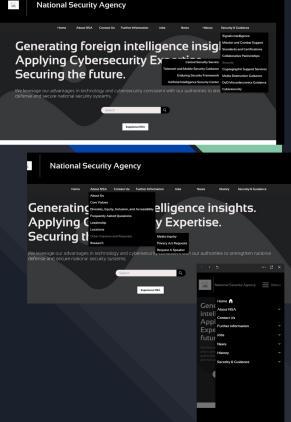
Figma Link to Homepage and Navigation Re-design https://www.figma.com/file/NvxEVi 'a4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=366-2825&mode=design&t=UlicfqXgLtQ IF2O-0

NSA Prototype Web Page and Mobile Page

National Security Agency National Security Agency Menu Contact Us Europer Information Generating foreign Preventing and Eradicating Cyber Threats intelligence insights. Applying Cybersecurity NSA's Cybersecurity Collaboration Center promotes public-private partnerships to deliver cybersecurity outcomes Expertise. Securing the future. National Security Agency 54 We leverage our advantages in technology authorities to strengthen national defense and secure national security systems. NSA Cybersecurity Q Search Collecting & Analyzing our Adversaries' NSA Cybersecurity prevents and eradicates threats to U.S. national security systems with a focus on the Defense Industrial Base and the improvement of U.S. weapons' security. It also strives to promote Moves Experience NSA cybersecurity education, research, and career-building. Consistent with our authorities, NSA collects foreign intelligence to inform policymakers and defeat adversaries earn More Learn More Contact Us Partnerships Defense.cov DNlgov NSA partners with other U.S. Government agend Intelligence.gov allies industry academia and researchers to strengthen cybersecurity awareness to advance the Site Policies state of cybersecurity f 🖬 🖬 🗇 earn More

Figma Link to Prototype: <u>https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node-id=366-2825&t=3g40bDjJfoqp3gmk-0</u>

5-Second User Test



- For this test, we focused on testing the navigations for both the mobile \bullet and web prototype of the homepage.
- User tests resulted in an overall success of usability with some feedback igodolto 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.

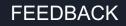
EQUIPMENT

- 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

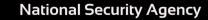
- Participants were asked to navigate between the menus and report any issues with finding the page.
- The test begins when the user is at the homepage for the NSA website. \bullet
- Once the test finished, user was asked to give feedback for the iteration.

5-Second User Test (Continued)



- 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



.

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

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	٩		
Contact Us	Defensegov	DNIgav	Intelligencegov	Site Policies	

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.

45

NSA - UI Style Tile

UI STYLE TILE: National Security Agency

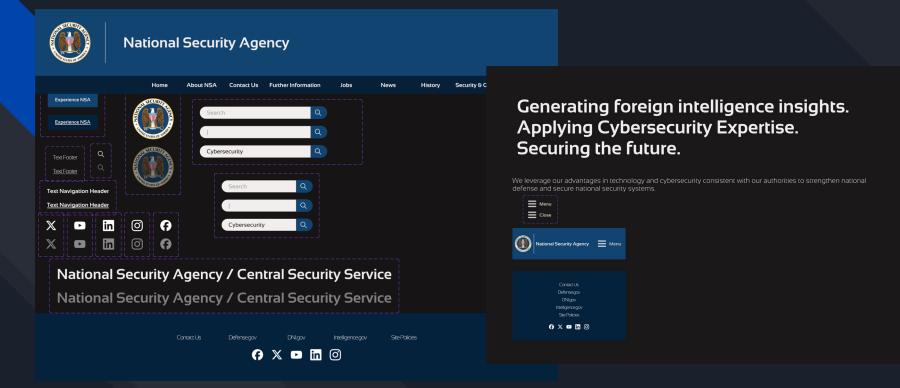
	Security Agency	DATE: 12/05/2024
UI STYLE DIRECTION The National Security Agency (NSA) is a United States government agency primarily responsible for national security-related activities. It operates under the Department of Defense and is a key part of the U.S. intelligence community. Protecting the nation against Cybersecurity threats etc.	BRAND LOGO - LOGO ON WHITE - LOGO ON DARK	COLOR PALETTE - BRAND COLORS BLEX B.COLOR BLEX B.COLOR
UI Style Adjectives Clean Bold Minimalistic	ICONOGRAPHY	- PRIMARY INTERACTION COLOR INTERACTION COLOR
TYPOGRAPHY Typography is the at and technique of ananging type to malke within language legible, restable, and visually appealing when displayed. It involves the selection of typefaces, point functional as a set of the selection of typefaces, point functional as a set of the selection of typefaces, point functional as a set of the selection of typefaces. The letters (therming).		GRAPHIC PATTERNS
H1 - Headline (Servation Bod N 12pr) H2 - Subhead (Servation Begute N 12pr)	BUTTON STATES	IMAGE SAMPLES
H1 - Headline (Samation Bold N 36/ps) H2 - Subhead Samation Light N 34/ps)	Normal	
"That Intelligence Capability is Enormously Important To The United States, To Our Conduct Of Foreign Policy, To Defense Matters, T(10) Economic Matters, And I am A Strong Supporter Of It." - Dick Chaney, CNN guession halt Nikyi	Hover	
TYPOGRAPHY BODY COPY THE provide the second	Active	BUTTON STYLES
adipiscing eilt, portutor elementum chas neque, sapien, leo enim bibendum ultrises in sed eu acu magna quis, lorem piscum dolor sit amet, consectetur adipiscing elit, portitor elementum chas neque, sapien. Ico enim bibendum ultrices in sed eu acu magna quis, this is a requiat linte	Disabled	e 207 fing datate kores, 52 in the d High hores.

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.

DATE: 12/05/2024

Figma link to Style Tile: <u>https://www.figma.com/file/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?type=design&node-id=98-740&mode=design&t=rXZ177FqRpVE3I68-0</u>

Visual design to Homepage Composition (Style Tile)



Figma link to the Visual Design: <u>https://www.figma.com/design/NvxEViYa4J2zLIrRNpvtyg/NSA-Government-Agency?node-id=258-552&t=XfMRzFFhH0zSSNJU-0</u>

Responsive Design

Style Guide & Branding

AaBbCc Sansation Bold 36 Sansation Light 30 Iconography

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.

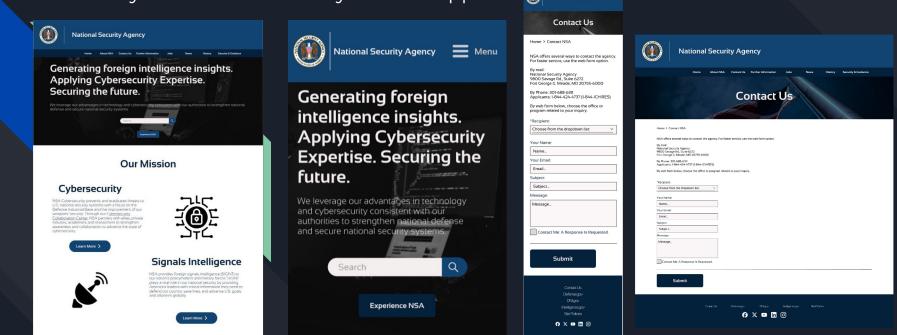
Social Media Iconography

存 🗶 🗈 in 🞯

Figma link to the full Style Guide for NSA: https://www.figma.com/design/NvxEViYa4

<u>https://www.figma.com/design/NvxEVIYa</u> <u>J2zLIrRNpvtyg/NSA-Government-</u> <u>Agency?node-id=485-</u> 2007&t=LFmLfe44CHg2dNZe<u>-0</u>

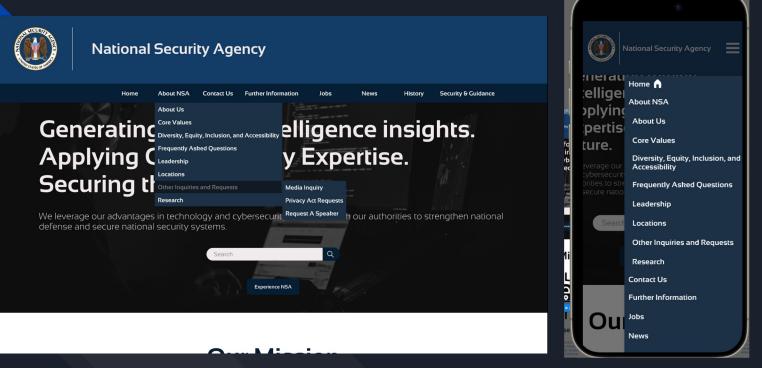
Hi-Fidelity Wireframes with Style Guide Applied



Desktop Redesign Figma link: <u>https://www.figma.com/design/NvxEViYa4J2zLIrRNpvtyg/NSA-Government-Agency?node-id=532-3216&t=4NxdWZQ3fdR1edKr-0</u>

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

Hi-Fidelity Prototype with Style Guide Applied



Figma Link to Hi-Fidelity Prototype (Desktop Version): <u>https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node-id=672-5228&t=S1I08c6YXMxVV4Bs-0</u>

Figma Link to Hi-Fidelity Prototype (Mobile Version): <u>https://www.figma.com/design/NvxEViYa4J2zLlrRNpvtyg/NSA-Government-Agency?node-id=672-5752&t=S1I08c6YXMxVV4Bs-0</u>



Interaction Design

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

AUTHOR BHARATH KANNAN		CONTACT DETAILS bazkannan96@gmail.com		FINAL DATE FOR COMMENTS 7th June 2024		
PRODUCT UNDER TEST National Security Agency Responsive Web Design Prototype.	TEST OBJECTIVES • The user should be able to find the Cybersecurity and Signals Intelligence pages with ease • The user should report any challenges or difficulties finding the target webpage • The user should report any challenges or difficulties with the	PARTICIPANTS • Between 5-10 participants will be testing the prototype for bot the Website and Mobile prototype of the NSA website. Anyone who has an interest in Ational Security or working for government related roles is a good candidate for testing the product.	TEST TASKS 1. To test if website meets accessibility guidelines 2. To test if webpages are easy to find 3. To test if the contact information can easily be found 4. To test if the colour scheme and font use is appropriate for the website 5. To test the typography, icongraphy, use of	RESPONSIBILITIES The participants involved in the test will ideally have some knowledge of government related fields and their responsibility is to check and report any issues related to the website re-design including the use of trop of the test of the test of the test of the NSA re-design.		
BUSINESS CASE 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.	 Insuigation menus The user should comment on the colour scheme and use of colour in the website re-design The user should be able to find exactly the webpage they're looking for just from the navigation menu The user should be able to access the website on their mobile phone device 	EQUIPMENT • Usability test will be done via Zoom meeting and recorded.	imagery on the NSA website 6. To test whether the website is accessible on mobile devices as well as desktop 7. To test if the navigation menu works as intended 8. To test if the correct labels have been used in the navigation menu	LOCATION & DATES 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.		

Link to FIGJAM Board: https://www.figma.com/b oard/Qkts5oKl8hwiRRH bHuFrNo/NSA-<u>Government-</u> <u>Agency?node-id=0-</u> 1&t=ZsAmVjDN5mSsJZI <u>3-0</u>

PROCEDURE

Participants will be asked to navigate the NSA website and look for the pages 'Cybersecurity' and 'Signals Intelligence' from the homepage

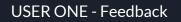
Participants will be asked to find and go to the 'Contact' page from the Homepage

Participants will be asked to find the submenu's in the 'About NSA' part of the navigation menu

Participant will be asked to return to the homepage from the 'Contact Us' page or the 'Cybersecurity page'

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.

Usability Testing Plan - Reports



Google Drive link to Recorded User Testing:

https://drive.google.com/drive/folders/1Pf2VL3rvX-VCisVsyN5kdLshbAVhnQ ?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



Google Drive link to Recorded User Testing:

https://drive.google.com/drive/folders/1Pf2VL3rvX-VCisVsyN5kdLshbAVhnQ ?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.