Project CADRE

Accessibility Update Report

Oct 25, 2020

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Method

The WAVE (Web Accessibility Evaluation Tool) Chrome plugin was used to review all pages in the CADRE website and the CADRE Gateway to identify any accessibility issues. Then, screenshots of the existing version of each page were taken and uploaded into Zeplin. The suggested accessibility-related UI/UX changes and errors and/or alerts that the WAVE plugin reported were made in Zeplin through the "Comments" function and pushed to the web developer to be implemented on the website.

All changes were implemented and rolled out to the end-user version of CADRE on Oct. 21, 2020, in CADRE’s beta launch.
The High-level accessibility review by Deque

Deque conducted High-level Accessibility Review of CADRE and shared its report with the Big Ten Academic Alliance (BTAA). Deque's report pointed out several accessibility issues on the CADRE website and Gateway, including color contrast, missing programmatic association, and name-role value problems where elements are not semantically identified as interactive elements.

Deque’s review also listed other less prominent accessibility issues following the corresponding WCAG 2/2.1 AA/AAA Success Criteria.

Many of the accessibility issues listed in the Deque report are not directly visible, such as semantics issues, missing/blank/incomprehensive alt text, controls/interactive elements that are not keyboard-focusable, etc. Through collaboration with CADRE’s lead developer, most of these issues are fixed, and changes have been rolled out in the beta launch.

Future Improvements

It is necessary to take into consideration that CADRE is currently only in its beta phase and will continue to go through a lot more major changes both functionally and interaction-wise. In CADRE's current stage, identified accessibility issues we plan to improve in the future include users being timed out of the Gateway without warning and structural enhancements for screen readers.

After the beta launch CADRE will only have one active and open instance (previously there was a stable public version and a less stable development-only version). Future changes will be available directly to all users.
CADRE Website Information Architecture: Before & After

Old CADRE Website Information Architecture

- CADRE Website
  - About CADRE
    - Getting Started
    - Available Datasets
    - The CADRE Team
  - Work With Us
    - RCSC Program
    - CADRE Fellowship
  - News & Events
    - News
    - Events
    - Blog
  - Contact Us
    - Gateway Feedback
  - Resources
    - Documentation
    - CADRE Data Access Policy
    - CADRE Outreach
    - Software Release Notes

Updated CADRE Website Information Architecture

- CADRE Website
  - About CADRE
    - Getting Started
    - Request a Trial
    - The CADRE Team
    - CIA CADRE
  - Work With Us
    - RCSC Program
    - CADRE Fellowship
  - News & Events
    - News
    - Events
    - Blog
    - Outreach
  - Contact Us
    - Gateway Feedback
  - Resources
    - Documentation
    - CADRE Data Access Policy
    - Software Release Notes
    - DOI
UX Copywriting. Changed from Get Started to Log In to ensure consistency and adopt common UX patterns in web design.

General accessibility. Enlarged font size from 1.25rem to 1.5 rem.

Contrast. The light blue Learn More does not provide sufficient contrast against the background illustration. Additional copywriting changes were also made.

Contrast. See also on the next page. Updated from #7285a3 to #4D5575, new contrast ratio: 7.07:1, WCAG 2.1 AAA compliant.
Contrast issue; visual aesthetics.
All underlined text removed.
Font color of all links in footer changed to #1451B3.
Font size of top-level links updated to 1.2em from 1em.
Updated/added/removed links in the footer as needed.
CADRE WEBSITE
About CADRE
https://cadre.iu.edu/about-cadre

CADRE addresses the IMS" National Digital Platform" priority area by addressing a critical emergent issue faced by academic libraries: providing sustainable, affordable, and standardized text- and data-mining services for licensed big datasets, as well as the open and non-consumptive datasets too large or unwieldy to work with in existing research library environments. By sharing costs across a large number of academic libraries, CADRE will create a cloud-based solution for making these data available to its member institutions—without appropriate security, stewardship, and storage—at a fraction of what it would cost them to do alone.

> Features
  - Access major datasets: access Web of Science, Microsoft Academic Graph, and U.S. Patent and Trademark Office data.
  - Private profiles: store query outputs, data analysis tools, and research results in profile.
  - CADRE Query Builder: use this user-friendly GUI query builder to easily query datasets.
  - Jupiter Notebook: proficient coders can build data analysis and visualization tools here.
  - Marketplace: reproduce queries, tools, derived data, research results, workflows, and visualizations—and utilize what others share.

> Partners
This platform was built as part of the Shared Big Data Gateway for Research Libraries (SBG-G) project, which is made possible by a two-year IMS grant. The project is led by Indiana University Libraries, in collaboration with the Indiana University Network Science Institute and the Big Ten Academic Alliance. This project is additionally supported by a group of cross-industry partners that you can learn more about here.

> Datasets
Our platform is currently seeded with a combination of open and licensed bibliometric datasets, including Microsoft Academic Graph, Web of Science, and U.S. Patent and Trademark Office data. You can learn more about these datasets by visiting the Available Datasets page. You can also read documentation for the datasets, as well as our CADRE Data Access Policy on our Resources page.

> Demos & Instructions
If you are a new user trying to learn more about how to work with the platform, visit our Resources page for informational videos and demos. You will also learn here how you can access data as general user and submit stories that will improve the CADRE platform.

> Stay Updated
CADRE is moving fast and changing daily. To stay in the loop, subscribe to our newsletter and follow us on Twitter at @CADRE_Project.

> Diagram

Structure & general accessibility.
Ensured the page title is <h1> for easy Assistive Technology navigation.

General accessibility.
Image missing alt text. Added “CADRE project logo” as alt text.

Contrast.
Text color for all breadcrumb links is updated to #1451B3 from #7285A3. New contrast ratio 7.16:1, WCAG 2.1 AAA compliant.

Contrast; readability.
Text color for all text links updated to #1451B3 from #007BFF, including all in-paragraph links. New contrast ratio 7.34:1, WCAG 2.1 AAA compliant.

Content font size updated to 1.1em.

Structure; general accessibility.
Removed bullets before each section title; made all section titles <h3> for better page structure.

See also other on this page.
The following pages are not included in this report because they do not involve any major page-specific accessibility change and/or updates.

**Getting Started** (https://cadre.iu.edu/about-cadre/get-started)

**Available Datasets** (this page has been deprecated; useful content has been merged into other proper pages)

**CADRE WEBSITE**

**About CADRE > The Team**

https://cadre.iu.edu/about-cadre/the-team

Structure & general accessibility.
See also other on this and the next page.
Made all section titles <h3> with text color #4D5575, proving contrast ratio of 7.07:1 against the background (#FAFBFF) which is WCAG AAA 2.1 compliant.

Readability; visual aesthetics.
New layout improved readability, made the page layout more efficient.
Structure & general accessibility.
Made all names <h5>. Contrast ratio: 14.91:1 (#212529 against #FAFBFF), WCAG AAA 2.1 compliant.
Since there are many names on this page, they are not all marked individually.

The following pages are not included in this report because they do not involve any major page-specific accessibility change and/or update.

Work With Us (https://cadre.iu.edu/work-with-us)
CADRE WEBSITE
Work With Us > RCSC Program
https://cadre.iu.edu/work-with-us/rcsc-program

Structure & general accessibility.
See other in this page.
Made section titles <h4> instead of <h5> to optimize the overall page hierarchy.

Additional details
Applicants can form research teams consisting of any discipline and institution. You may also submit a research proposal without a team.
If you have any questions, you can contact us.

External resources
The CADRE Project also wants to highlight important resources research and technology can take advantage of during this time. Please contact us with any resources you are aware of so we can add them to the list.

- A list of content providers that have opened access to paid academic resources in response to COVID-19: Click here
- C3 at COVID-19 Data Lake is a unified, federated, open data image of critical COVID-19 data available at no cost to researchers, beginning April 13: Click here

Current RCSC Researchers

1. Science maps of research referenced in COVID-19 articles from the Indiana University Network Science Institute and the University of São Paulo
   - Filipi Nasimento Silva, research scientist, Indiana University Network Science Institute
   - Diego Raphael Amaral, associate professor, Department of Computer Science, University of São Paolo

These researchers plan to address the recent flood of COVID-19 studies in preprint repositories. The sudden influx makes it difficult for researchers to stay on top of research that is relevant to their particular field using metrics or citations. The research team proposes a network-driven study that summarizes the field related to recent COVID-19 literature. They will accomplish this by building citation networks among the most recent studies and applying community detection and keyword extraction to understand how the literature is organized. The researchers say that automated methods for summarizing COVID-19 research, as well as interactive visualizations, will aid other researchers in finding the most relevant and recent research in their field. The team will use CADRE’s unified environment for access to scholarly datasets to accelerate their research.

2. Creating a map of COVID-19 research using neural embeddings: A retrospective approach from Indiana University Bloomington
   - Sadami Kojaku, postdoctoral fellow, Luddy School of Informatics, Computing, and Engineering, Indiana University Bloomington

This project will create a map of papers on COVID-19 that will be compared with maps for similar viruses, such as SARS and Influenza, to better understand unexplored and concentration areas in the research. Kojaku will employ neural embedding methods, used to project research papers onto a lower dimensional space using citations and semantic information, and then compare the density of papers on COVID-19 with other diseases. Kojaku says this research will both address unexplored areas that may deserve more attention and allow researchers to easily explore research related to COVID-19. Kojaku is part of the Science Genome project, which is a close CADRE collaborator, and says he will use CADRE to access the comprehensive, continuously updated CORD-19 dataset and related research, as well as to receive support from CADRE’s technical team and access to its computing resources.

3. Tracking and Recognizing Patterns of Communication, Search, and International Collaboration in COVID-19 Research from Ohio State University, University of Hawaii at Manoa, and University of Technology Sydney

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This research team plans to study international collaborations that are forming to perform COVID-19 research. The researchers say the combination of an intense research focus and a demand for quick results provides a rare opportunity for social scientists who study collaboration, trust, and science dynamics. The team added that the abundant informal communications and knowledge sharing among scientists to address COVID-19 is rare. All of these circumstances have created an opportunity for the researchers to study team formations in real-time with CADRE.

They plan to take advantage of CADRE’s datasets and technical tools in their research. Two team members (Wagner and Cai) are also currently using CADRE for another CADRE- funded project.

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4. Study of Pandemic Publishing: How Scholarly Literature Is Affected by COVID-19 Pandemic from the University of Michigan

- Yulia Sevryugina, chemistry librarian, Shapiro Science Library, University of Michigan, Ann Arbor
- Andrew Dicks, undergraduate student assistant, University of Michigan, Ann Arbor

Yulia Sevryugina’s project will address the quality of recently published COVID-19 publications. Sevryugina says COVID-19 related research is being performed and published hastily. She adds that turnaround times for medical journal publications have decreased by almost 50 percent. Speedy research and condensed publication timelines contribute to a lack of scientific rigor and increase the likelihood of corrections and retractions, leading to the spread of false information in trusted journals. Sevryugina will study the quality of COVID-19 related scholarly works by using CADRE’s datasets to identify signs of incoherence, irreproducibility, and haste. This includes analyzing COVID-19 published literature for incoherent writing, stylistic errors, plagiarism, speculative language, unrepeatable experiments, and far-fetched conclusions based on poor quality data. She will also examine retracted and corrected manuscripts and explore their citation maps to understand how errors propagate through scholarly literature. Sevryugina hopes her research will help others find the balance between expediting publication timelines and maintaining research quality.

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CADRE WEBSITE
Work With Us > CADRE Fellowship
https://cadre.iu.edu/work-with-us/cadre-fellowship

Currently, our fellowship program is closed and we will not be taking on any new fellows in the coming months. Instead, we invite you to test CADRE, which is in alpha. Learn how to access the platform here.

We have an exciting upcoming lineup of webinars in our fellows webinar series, where you can learn more about each of our fellow researchers. You can see who’s presenting next by visiting our events page — and be the first to know when fellows will present by following us on Twitter @CADREProject and subscribing to our newsletter.

Our fellows

Our elite fellowship team span across disciplines and drive compelling research that incorporates big data and bibliometrics. These fellows traveled with the CADRE team to the 2019 International Conference on Scientific and Technical Information in Rome and will present their work in webinars in 2020.

Our fellowship teams include:

1. Utilizing Data Citation for Aggregating, Contextualizing, and Engaging with Research Data in STEM Education Research from Purdue University Researchers:
   - Michael Wu, associate professor of library science, Purdue Libraries and School of Information Studies, Purdue University
   - Lorain Carleton Parker, associate director & senior evaluation and research associate, Evaluation Learning Research Center, Purdue University
   - Ann Besenbacher, research associate and data scientist, STEMEx Hub, Purdue University

Researchers will characterize citation of data from the literature in the field of STEM education research. A sample of relevant publication venues in the field will be identified from WoS and MAG. Digital Object Identifiers (DOIs) of datasets registered with DataCite will be used to query and associate datasets with publications. The team will assess rates of citation for datasets that are cited using DataCite DOIs for each publication venue and analyze a sample of data citations and publications to determine suitability for providing an initial context to help a researcher who is unfamiliar with the data determine whether to use the dataset.

2. Understanding citation impact of scientific publications through ego-centered citation networks from Peking University, Nanjing University and University of Texas at Austin
   - Yi Bu, Assistant Professor at the Department of Information Management, Peking University, China
   - Chao Min, research assistant professor in information management, Nanjing University in China
   - Ying Ding, Bill & Lewis Sull Professor at School of Information, University of Texas at Austin

The research team seeks to find the "deeper" and "broader" impact of network-based citation measurements in the scientific community. This project will determine the citation impact of scientific publications using an ego-centred citation network, which contains the citing relationships between a publication and its citing publications, as well as the relationships within its citing publications. Researchers will use the entirety of the WoS and MAG data to establish empirical evidence in this project.

3. MCAP: Mapping Collaborations and Partnerships in SDG Research from Michigan State University
   - Jane Paavola, academic specialist and research and data evaluation manager, MSU AgBioResearch, Michigan State University
   - Devin Higgins, digital library programer, MSU Libraries, Michigan State University
   - Scott Colbert, data librarian, MSU Libraries, Michigan State University
   - Guangming He, information management analyst, MSU Innovation Center, Michigan State University
   - Anusha Manjunatha, data research analyst, MSU AgBioResearch, Michigan State University

This project will build on the WoS report "Navigating the Structure of Research on Sustainable Development Goals (SDGs)" as the researchers search for patterns of global collaboration and support the United Nations SDG call for action. Researchers will design a prototype to analyze and visualize the input-output of partnerships over time in SDG-supportive research. They also plan to create a scoring measure or partnership index that defines and conducts partnership analytics for SDGs by using data sourced from WoS and MAG.

4. The global network of air links and scientific collaboration – a quasi-experimental analysis from Indiana University Bloomington and University of Warsaw
   - Katy Börner, Victor H. Yngve distinguished professor of engineering & information science, Indiana University Bloomington
   - Adam Piskorski, assistant professor at the Centre for European Regional and Local Studies, University of Warsaw
   - Uziel Record, associate director, Cyberinfrastructure for Network Science Center
   - Bruce Herr II, senior systems architect and project manager, Cyberinfrastructure for Network Science Center

Researchers plan to determine the impact of the introduction and availability of long-distance flights on international scientific collaboration. The team will measure collaboration through co-authorship and co-affiliation. They will also geocode publication affiliations from WoS and MAG from 1998 through 2017. This quasi-experimental research will apply state-of-the-art causal modeling techniques and explore how data-driven causality can enhance science of science policy relevance.
team will measure collaboration through co-authorship and co-athorship. They will also geocode publication affiliations from Web and MANU from 1998 through 2017. This quasi-experimental research will apply state-of-the-art causal modeling techniques and explore how data-driven causality can enhance science of science policy relevance.

5. Measuring and Modeling the Dynamics of Science Using the CADRE Platform from University of Minnesota, New York University, Boston University, University of Pennsylvania, University of Arizona
   - Russell Fung, assistant professor of strategic management & entrepreneurship, University of Minnesota
   - Michael Park, Ph.D. student in strategic management and entrepreneurship, University of Minnesota
   - Thomas Gerhardt, Ph.D. student in computer science and engineering, University of Minnesota
   - Britta Glanum, assistant professor at Wharton School, University of Pennsylvania
   - Julia Lane, professor at Wagner Graduate School of Public Service, New York University
   - Raviv Marciano-Geoff, assistant professor at Questrom School of Business, Boston University
   - Matthew Ross, research assistant professor at Wagner Graduate School of Public Service, New York University
   - Erin Lebey, professor and director of sociology, University of Arizona
   - Jina Lee, Ph.D. student in sociology, University of Arizona

This research team aims to better understand scientific influence of papers, typically measured by how many times papers are cited, by distinguishing between papers that destabilize existing knowledge with novel concepts and papers that consolidate existing knowledge. In a separate but closely related aim, the researchers also plan to create a novel unsupervised machine learning technique for author-name disambiguation by pulling abstract, title, and citation data from Web of Science and MANU. For both aims, the CADRE platform will provide essential infrastructure in terms of large-scale data storage and high-performance computational resources.

6. Comparative analysis of legacy and emerging journals in mathematical biology from University of Michigan and University of Michigan Medical School
   - Marisa Conde, assistant director of research & informatics, Taubman Health Sciences Library, University of Michigan
   - Samuel Hansen, mathematics and statistics librarian, Shapiro Science Library, University of Michigan
   - Scott Martin, biological sciences librarian, Shapiro Science Library, University of Michigan
   - Santiago Schnell, John A. Jacquez college level professor of physiology, University of Michigan Medical School

Researchers will perform a comparative analysis on papers published in four mathematical biology legacy journals and on newer journals with different publication models and disciplinary scope. The team will use the CADRE datasets to develop methodologies for comparative bibliometrics and content analysis; provide insight into publication trends in theoretical and applied domains; give authors new factors to consider when trying to publish; and help editors in similar disciplines use informatics to distinguish their journals.

7. Systematic over-time study of the similarities and differences in research across mathematics and the sciences from University of Michigan
   - Samuel Hansen, mathematics and statistics librarian, Shapiro Science Library, University of Michigan

Samuel’s project uses reference and citation aging, bibliographic coupling, and network breadth and depth to find similarities and differences between research fields in mathematics and the sciences. Specifically, they will find how information ages differently across disciplines, generate data about changes in the development of these research fields, and study how actively collaborative the disciplines are. Samuel will use WoS data from 1990 to 2017 to perform these analyses, which have typically only been done on a smaller scale in a single discipline.

8. Assessing the rise of China as a scientific nation from The Ohio State University
   - Caroline Wagner, associate professor, Milton & Roslyn Wolf Chair in International Affairs, John Glenn College of Public Affairs, The Ohio State University
   - Xiaojing Cai, visiting fellow, John Glenn College of Public Affairs, The Ohio State University

This project is part of a series of studies in which researchers are assessing the rise of China in scholarship. In particular, the project aims to provide a comprehensive assessment of the nature of China’s publications in science and engineering over the past 20 years. One part of the study will be to examine the published scholarship from China and by Chinese nationals abroad. This will include case studies of specific fields, as well as macro overviews of the output, its impact, and the collaborations involved in China’s rise. The team will use Web of Science and Microsoft Academic Graph to perform this research.
General accessibility.
Previously, these section titles were clickable and looked like buttons. They are now all plain-text <h3> in #4D5575, contrast ratio 7.07:1, WCAG 2.1 AAA compliant.
See also other in this page.

Contrast.
Updated text link color to #1451B3, contrast ratio 7.07:1, WCAG 2.1 AAA compliant.
See also other in this page.

Contrast.
Changed title text color from #677FBD to #5B72B7, providing a contrast ratio of 4.63:1, WCAG 2.1 AA compliant.
See also other in this page.

Contrast.
Changed text color from #838896 to #525860, providing a contrast ratio of 7.18:1, WCAG 2.1 AAA compliant.
See also other on this page.

Contrast.
Changed button color from #5B72B7 to #1451B3, providing a contrast ratio of 7.34:1, WCAG 2.1 AAA compliant.
See also other on this page.
General accessibility and contrast.
Made this text an `<h4>`, meaning larger font size and more Assistive Technology friendly; changed color from #646C81 to #212529, providing stronger contrast.

Readability; visual aesthetics; consistency.
Enlarged font size of all card titles (i.e. news titles) from 1em to 1.25em.
Normalized the format of data and source for each news entry.
Removed underline for all titles since text color difference is already sufficient in identifying titles as links.
Added space between the title, the preview paragraph, and the Read More link.
CADRE WEBSITE
News & Events > Events
https://cadre.iu.edu/news-and-events/events

General accessibility and contrast.
Made this text an <h4>, meaning larger font size and more Assistive Technology friendly; changed color from #646C81 to #1451B3, providing stronger contrast.

General accessibility.
For all event titles, changed text color to #1451B3 for better contrast.
For all Event Dates, enlarged font size to 1.1em, and changed text color to #1451B3 for better contrast.
For all Event Preview text, changed text color to #212529 for better contrast.
Changed See Details button background color to #1451B3.
General accessibility and contrast.
Made this text an `<h4>`, meaning larger font size and more Assistive Technology friendly; changed color from #646C81 to #212529, providing stronger contrast.

Readability; visual aesthetics; consistency.
For all event titles, changed text color to #1451B3 for better contrast; removed underline; enlarged font size to 1.25em.
Added space between blog post title and date.
For all Read More... text links, changed text color to #1451B3.
CADRE WEBSITE
Contact Us
https://cadre.iu.edu/contact-us

Semantics.
Added correct ARIA labels for the feedback form.

Contrast.
For all text links, changed text color to #1451B3 for better contrast.

UX copywriting.
Changed button label to Submit to make label shorter, clearer, and cognitively easier.
CADRE WEBSITE
Resources
https://cadre.iu.edu/resources

1. Made section titles `<h3>` instead of `<h4>`.
   See also other on this page.

2. Structure; readability; visual aesthetics.
   Made all video titles `<h4>` instead of unordered list items.
   Additionally, added top and bottom margin to all video titles so the page looks more spacially arranged.
   Applies to all items marked on this page.

   Made section titles `<h3>` instead of `<h4>`.
Data Access/General User Application

To request data access, please first read the CADRE Data Access Policy. You can then complete the CADRE General Data User Application. Upon approval, data access is provided by UNI Data Manager Matthew Hutchinson.

- CADRE Data Access Policy
- CADRE General Data User Application Form

User Story Collection Form

We rely heavily on user stories and use cases to create a platform that is helpful to every type of academic researcher. To tell us what you want to see in our platform, share your user story. Please note, this form takes you to the UNI Network Science Institute website.

- User Story Forms
Structure.
Made section titles <h4> instead of <h5>; added space below section titles.
See also other on this page.
CADRE WEBSITE
Resources > CADRE Data Access Policy
https://cadre.iu.edu/resources/data-access-policy

Scope
All agents of the Universities participating in the CADRE project who wish to access the Web and MAG datasets stored on IUNI's datacache.

Policy Statement
- IUNI has entered into an agreement with Clarivate Analytics to receive a copy of the "Web of Science" (WoS) and "Microsoft Academic Graph" (MAG) and Microsoft Research to receive the "Microsoft Academic Graph" (MAG) and Clarivate Analytics. The WoS dataset consists of nearly 40 million records documenting scholarly research from the end of the nineteenth century up and including 2017. The MAG dataset includes over 100 billion publications with the latest data having been included in 2018. The data will be made available to researchers via the Digital Object Identifier (DOI) and the Work Object Identifier (WOI). The data is only accessible via a three distinct modes: Raw XML data (WoS) or TSV (MAG) A relational PostgreSQL database, developed by the Web of Science and TSV data (MAG) A relational PostgreSQL database.

Reason for Policy
IUNI wants to make the WoS and MAG data accessible to eligible individuals while adhering to the terms and conditions of the agreement with Clarivate Analytics and Microsoft Research.

Procedure
1. The data are accessible to eligible individuals who have registered with the IUNI website.
2. The data are accessible to eligible individuals who have completed the registration process.
3. The data are accessible to eligible individuals who have completed the registration process and have received an approval from IUNI.
4. The data are accessible to eligible individuals who have completed the registration process and have received an approval from IUNI and the University's Institutional Review Board (IRB).

Definitions
- IUNI: The Indiana University Network Science Institute (IU/IUNI)
- Eligible Individual: An individual who is employed or is an active student at an institution participating in the CADRE project.
The CADRE Outreach page is included in the Resources section (on the next page), but in the updated website, it has been moved to the News & Events section; new URL to the page is:

https://cadre.iu.edu/news-and-events/outreach
UX Copywriting. Changed the copywriting to “A full bibliography of CADRE’s outreach activities since the beginning of its grant.” to make the page more understandable.

Visual aesthetics; readability. Added 1em space between each listed item.
Contrast. Adjusted the button color universally from #017BFF to #1451B3, providing a 7.35:1 contrast ratio against the #FFFFFF card background and button label texts; WCAG 2.1 AAA compliant. Applies to all items marked with [1] on this page.

Visual aesthetics. For all <h2>s in Gateway, added spaces above and below the text, giving all page titles more space.

Contrast. Adjusted opacity of this button to 100% which means this button is fully visible. Additionally, the Gateway-universal button background color change also applies to this button.

Visual aesthetics. For all <h3> in Gateway, changed text alignment to left-aligned, enlarged font size to 1.75em, made line height larger, added surrounding space.
Contrast.
The lighter end of the background gradient provides poor contrast against the white page title. The gradient was changed from #3E81EA - #92D3E7 to #003385 - #2670E8; both ends of the new gradient provide contrast ratios greater than 4.90:1, WCAG 2.1 AAA compliant (for large text only).
This change applies to all pages of the Query Builder.

Contrast.
Universal button background color change also applies to these radio buttons.

Structure; visual aesthetics.
Moved this “Proceed to Query Builder” button into the box above, added a divider between the button, added space around the button, removed text underline, and aligned the button to the left of the radio buttons above. The reason for these changes is that the button belongs to the same functional group with controls inside the box.

Visual aesthetics.
Universal &lt;h3&gt; style change also applies to this.

Visual aesthetics.
Made this text horizontally aligned to radio buttons to their left.
Contrast. See note [1] in the last page.

Structure; Visual aesthetics; readability.

Universal <h3> style change also applies to this.

The universal button background color also applies to controls marked with [3] as highlight/selected state color.
Other universal accessibility changes include:
- Color of the focus indicator is changed to improve its contrast ratio.
- Fixed controls/objects that are missing attributes.
- Fixed controls, such as custom buttons, that are not programmatically associated with their group labels.