Georgia Tech Center for Inclusive Design and Innovation

It Takes a Digital Village

Carolyn Phillips, John Rempel

Center for Inclusive Design & Innovation

College of Design | Georgia Institute of Technology

History

Georgia Tech Center for Inclusive Design and Innovation

- CIDI is a merger of the Center for Assistive Technology and Environmental Access (CATEA) and AMAC Accessibility.
- CATEA grew out of collaborations in the late 1970s between Georgia Tech Industrial Design students and local disability groups.
- AMAC started in 2005 as the Alternative Media Access Center to help post-secondary institutions provide complete, timely, and efficient accommodations to print-disabled students.

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Serving Customers Across the Street & Around the Globe

- Georgia Tech
- University System of Georgia (USG)
- Higher Ed institutions Across the Country
- State and Federal Governments
- National and International Non-Profits and For Profits

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The ADA 30th Anniversary July 26

Accessibility is a Human Right for People with Disabilities

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Center for Inclusive Design & Innovation

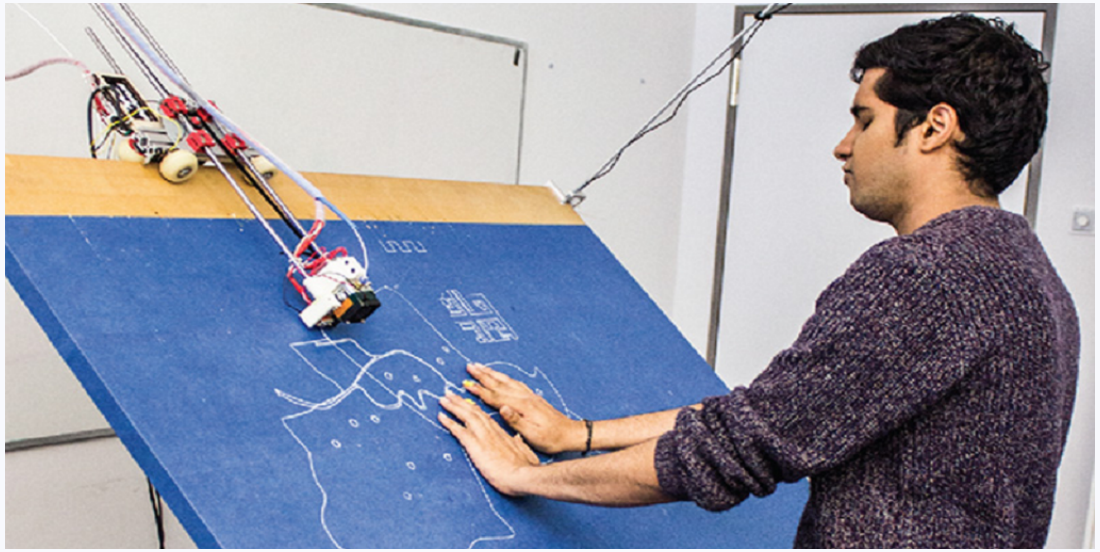
- Center for Inclusive Design & Innovation (CIDI) provides practical solutions for challenges faced daily by individuals with disabilities.

- We focus on solutions that offer utility, usability, and durability.

- CIDI offers services including disability compliance consultation, braille, captioning, accessible digital content, and assistive technology

Print and Text Services

- Braille Services produce high-quality electronic or embossed braille and custom tactile graphics



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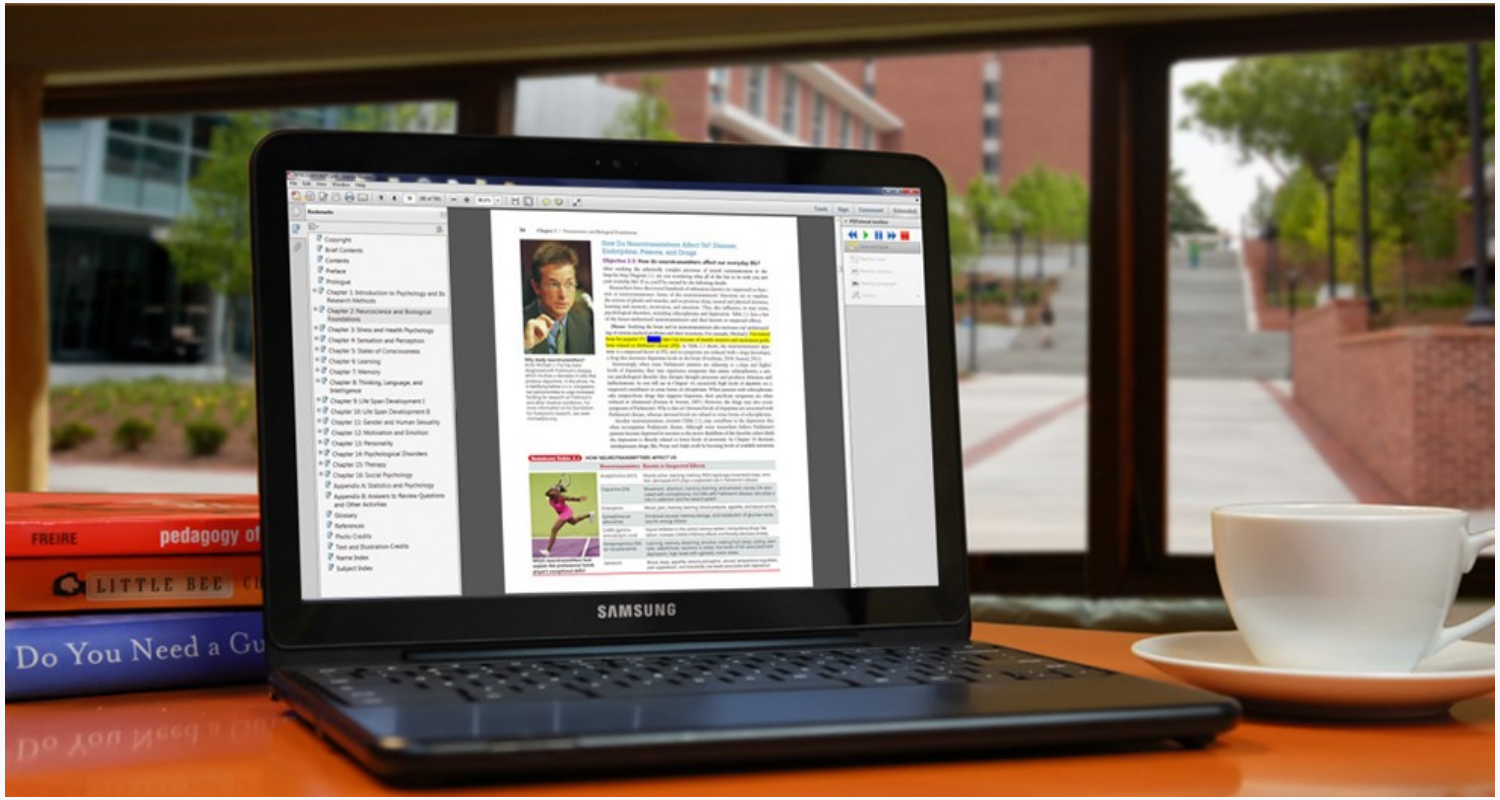
E-Text Services

- E-Text Services produce and provide high-quality e-text in formats such as:
- PDF
- DOC
- PPT
- DAISY
- EPUB
- HTML.



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Tools for Life

- The Certified Assistive Technology Team conducts on-site or remote assessments and offers demonstrations, training, and assistive technology for learning, work, and daily living.

- The AT team hosts Georgia's Assistive Technology Act program, Tools for Life.

TOOLS for LIFE
Georgia's Assistive Technology Act Program

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Digital Accessibility and UX Services

- Evaluation of website and application accessibility
- Training
- Technical assistance
- Compliance and Best Practice
- Usability testing

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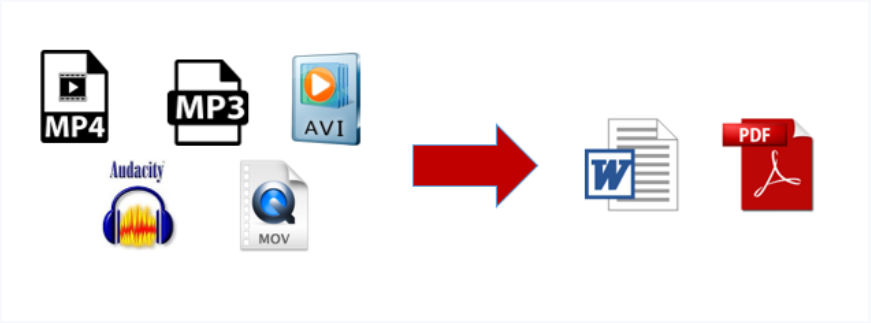
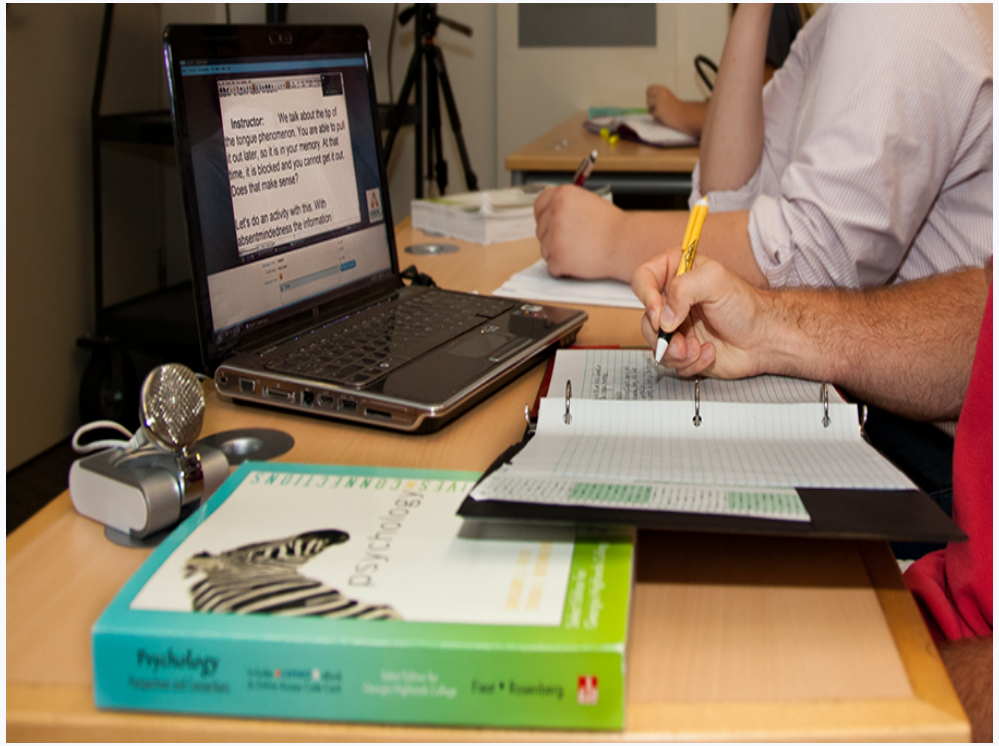
Captioning Services

- Captioning Services provide **real-time remote live-captioning** for college lectures, seminars, and labs, as well as special events such as conferences, graduations, and workshops.

- We also provide professionally edited **post-production transcription and closed captioning** for pre-recorded content.





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Audio Description Services

- CIDI's Audio Description Services narrate and describe the visual components in multimedia to accommodate persons who are blind or low-vision.

Accessibility Research

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- Our research primarily focuses on students with disabilities, who are traditionally underrepresented in higher education.
- Disability spans across all age, gender, ethnic, racial, cultural, and socio-economic boundaries.
- CIDI also studies how corporate, government, and non-profit organizations support customers and employees with disabilities.

Disabilities: What does this mean? Who does this apply to?

Who Are People with Disabilities?

- Visual
- Auditory
- Speech
- Mobility
- Cognitive and Neurological
- Mental Health

Living with a Disability

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According to the CDC, over 61 million people in the US are living with a disability that can affect their ability to:

- see
- hear
- communicate
- reason
- walk
- perform other basic life functions

CDC

CENTERS FOR DISEASE CONTROL AND PREVENTION

Commonly Used Assistive Technology Solutions

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ClaroRead

- Text-to-Speech
- Visual Highlighting
- Read back any on-screen text and program commands
- High Quality Screen Reader
- Keyboard Echo
- Save to Audio

Read & Write Gold

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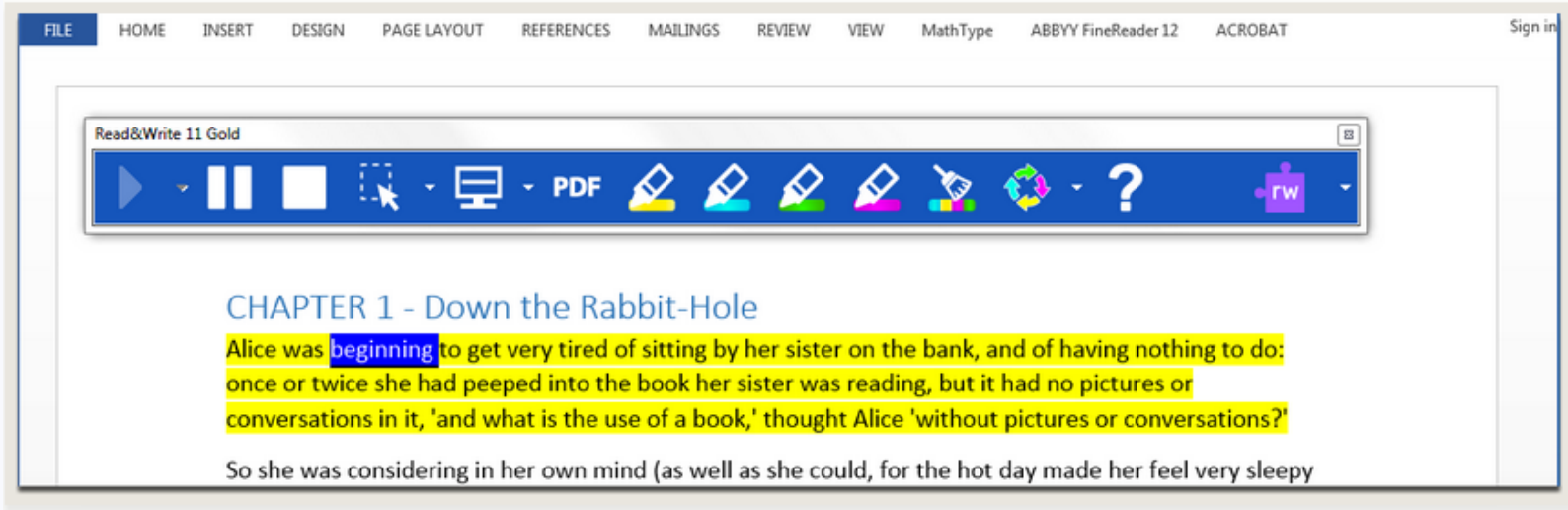
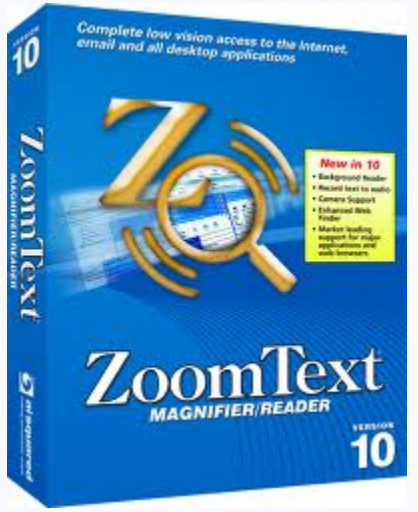
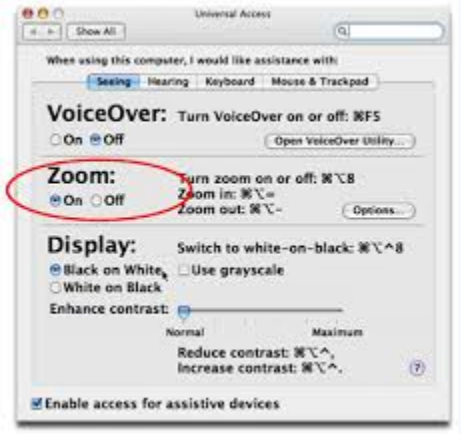
- Text-to-Speech software
- Reads Word, PDF files and web pages as long as they're accessible
- Text Highlighting
- Allows for creation of audio version



Screen Magnification Programs

- MAGic
- ZoomText
- Windows Magnifier
- Mac Zoom
- Zoom and Magnifier (iOS & Android)





Commonly Used Screen Readers

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Common AT Testing Tools
for Desktop/Laptop

JAWS

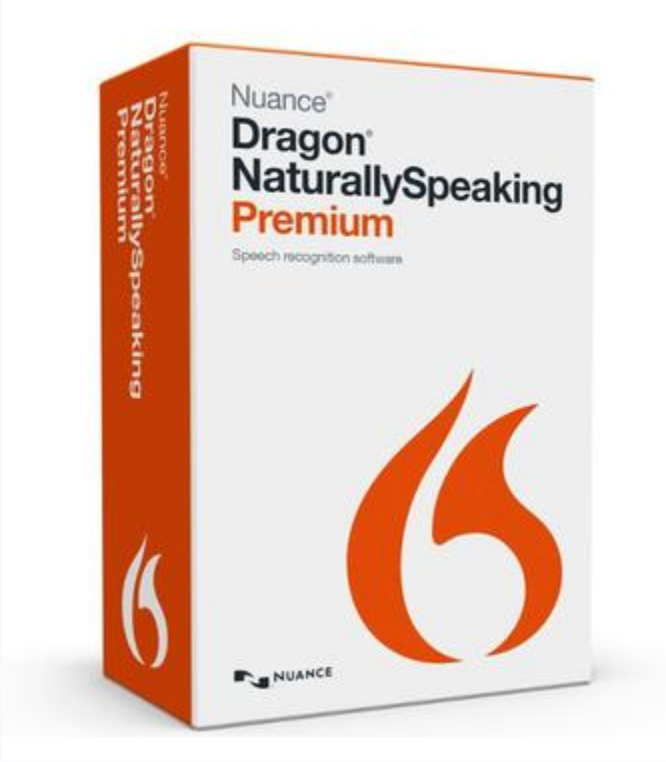
NVDA

VoiceOver for the Mac

Mainstream Tech as Assistive Technology

Speech Recognition Software

- Turn spoken words into text
- Connect with the timing of your thoughts
- Dictation speed 70 to 100 words per minute

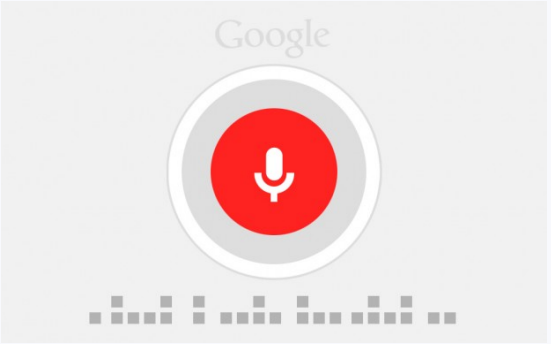


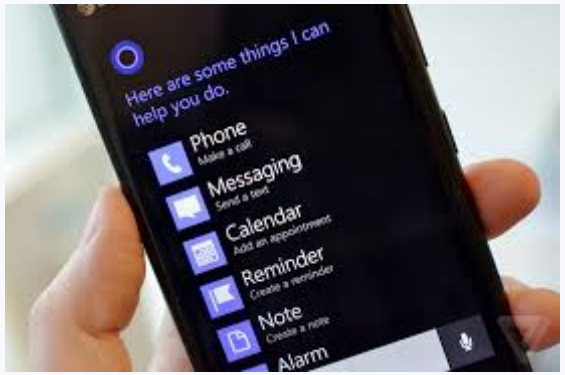
Mainstream Solutions as Assistive Technology

- Siri (Apple)
- Google Now

  (Google)
- Cortana

  (Microsoft)





Text-to-Speech/Speech-to-Text Solutions

HomePod, Echo, and Home size comparison

ICT and UX Services

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What is AccessGA?

AccessGA is a joint initiative of the State of Georgia ADA Coordinator's Office, CIDI, and the Georgia Technology Authority (GTA).

The objective is to support Georgia state agencies that strive to provide equitable and timely access to their employees, students, and clients with a wide range of disabilities.

AccessGA
Georgia's Accessible ICT Initiative

Benefits and Services Include…

- Access to live monthly webinars and archived webinars
- Technical assistance and hands-on training
- Web accessibility evaluations and resources
- Periodic newsletters
- Up-to-date wiki of ICT accessibility resources and information
- Special events

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WAG - Web Accessibility Group

Monthly Webinars

- Housed at the Center for Inclusive Design & Innovation (formerly AMAC Accessibility) at Georgia Tech
- First Wednesday of most months
- Focus on web accessibility for higher-ed
- WAG listserv discussion and technical guidance
- WAG website http://www.amacusg.org/wag

WAG
WEB ACCESSIBILITY GROUP FOR HIGHER EDUCATION

- Its purpose is to bring together individuals in Higher Ed seeking to navigate the complex requirements of state and federal accessibility standards and guidelines.

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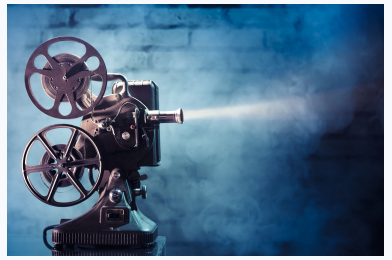
Accessibility Evaluations for Compliance and Best Practice

- **WHAT**: Executive summary and breakdown of accessibility findings in alignment with national and international standards and guidelines

- **HOW**: Comprehensive analysis of accessibility issues captured in a detailed spreadsheet that offers specific remediation solutions

- **WHY**: MP4 video illustrating why existing accessibility issues are an issue, facilitating better understanding of AT solutions and the needs of people with disabilities



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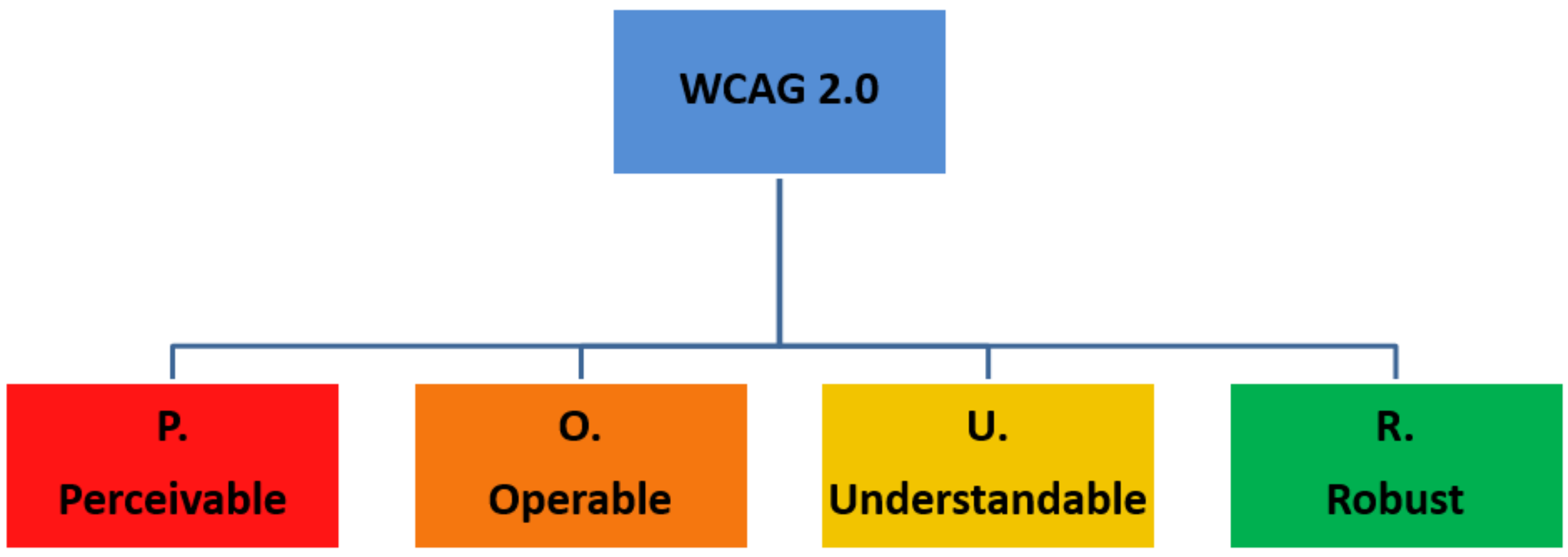
Basic Principles of WCAG 2.0/2.1



Perceivable - Reflow

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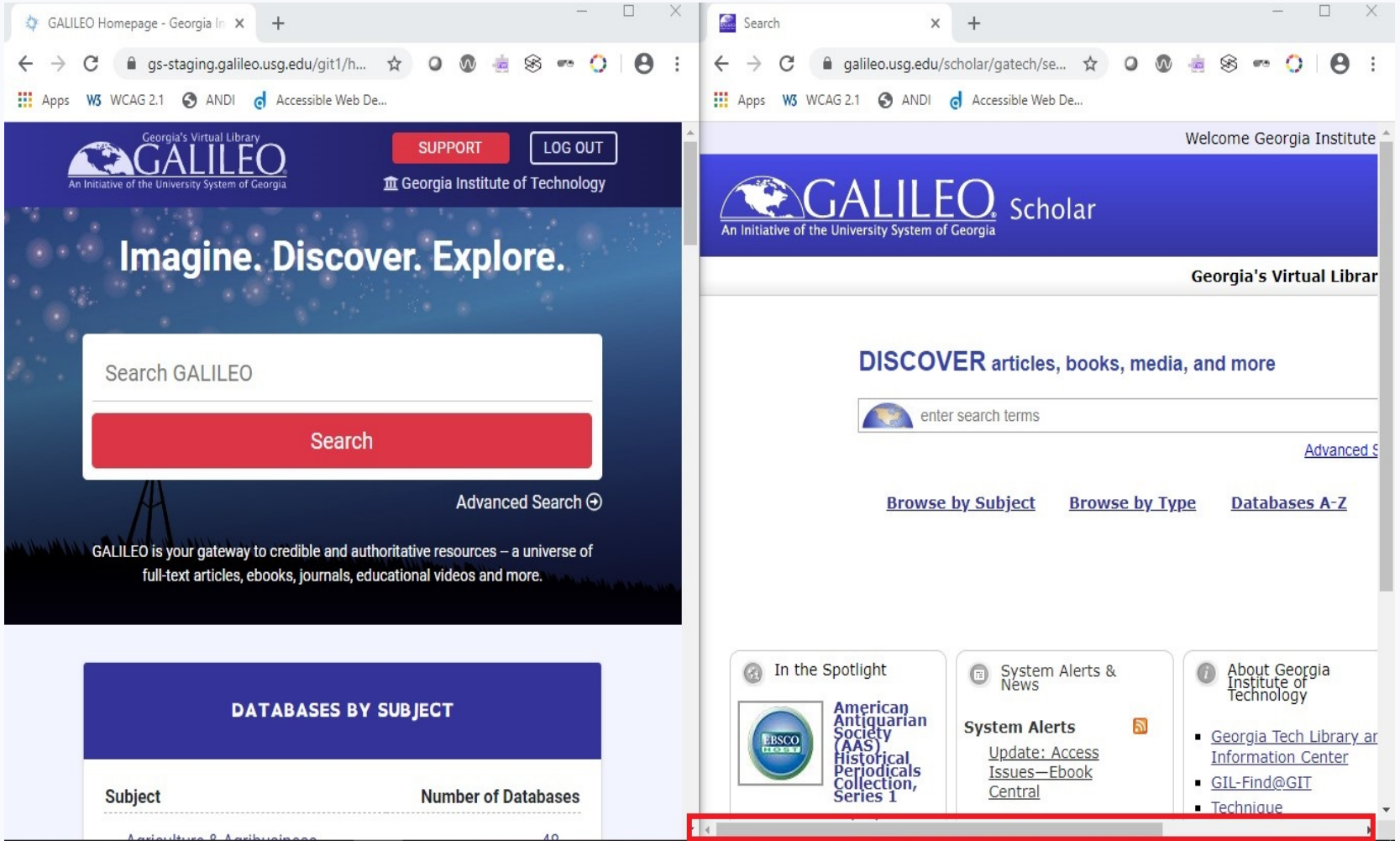
Guideline - **1.4.10 Reflow** (Level AA): Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions



Perceivable – Identify Input Purpose

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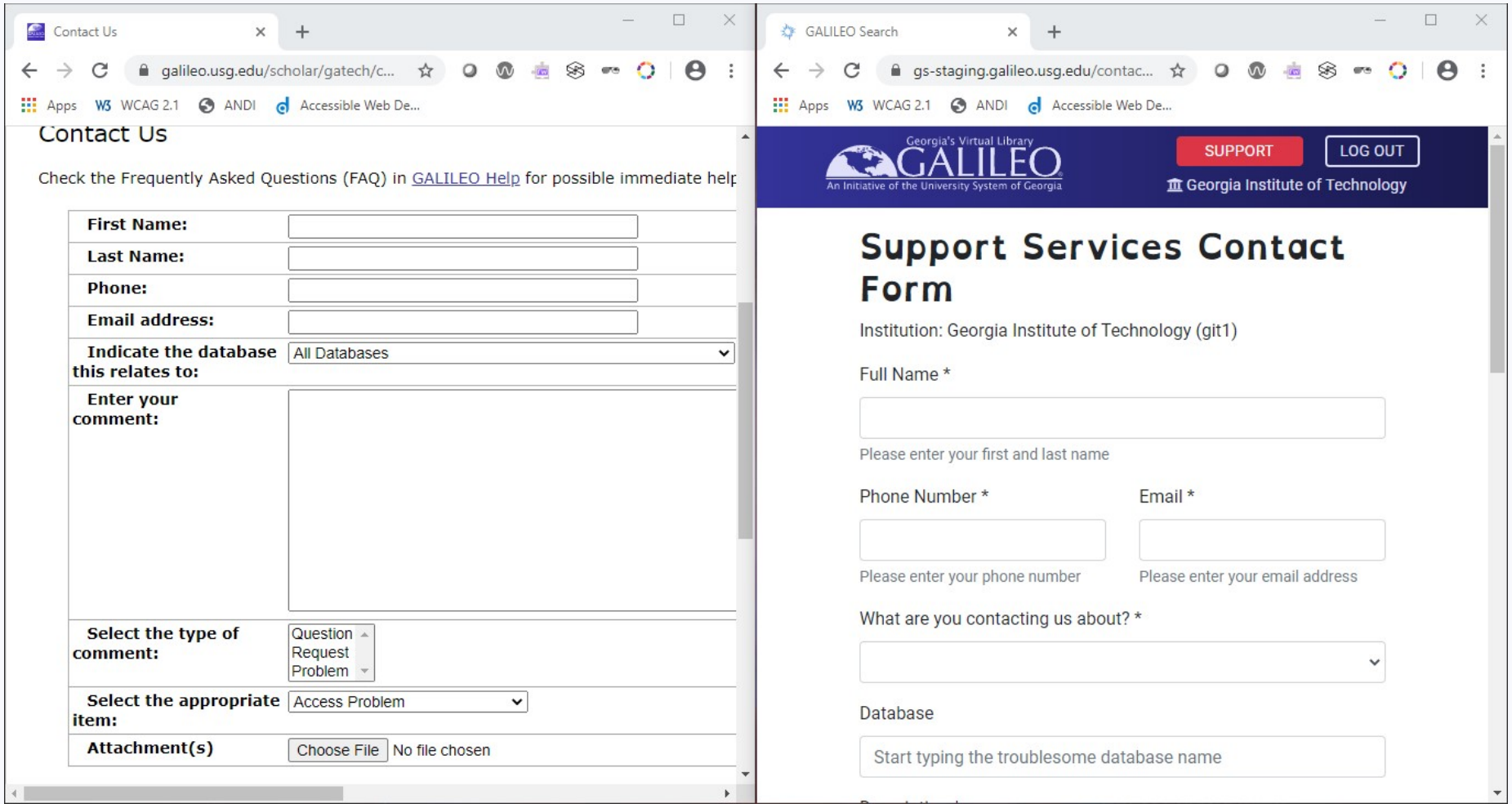
Guideline - [1.3.5 Identify Input Purpose](#) (Level AA): The purpose of each input field collecting information about the user can be programmatically determined.



Operable – Improved Page Title

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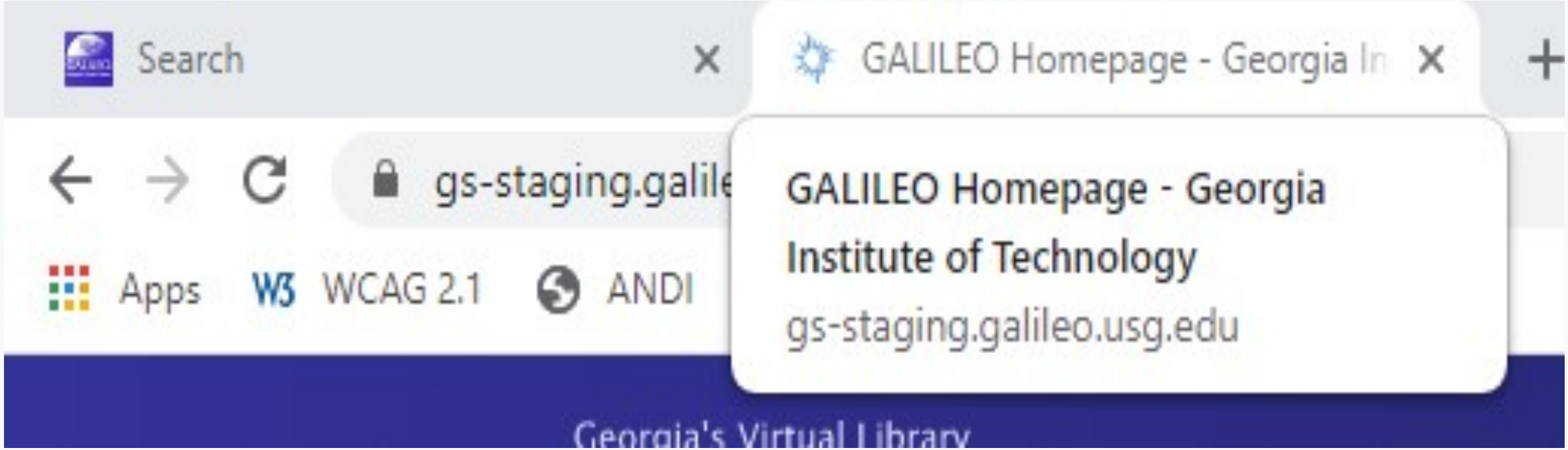
Guideline - **2.4.2 Page Titled** (Level A): Web pages have titles that describe topic or purpose.



Operable – Skip to Main Content Links

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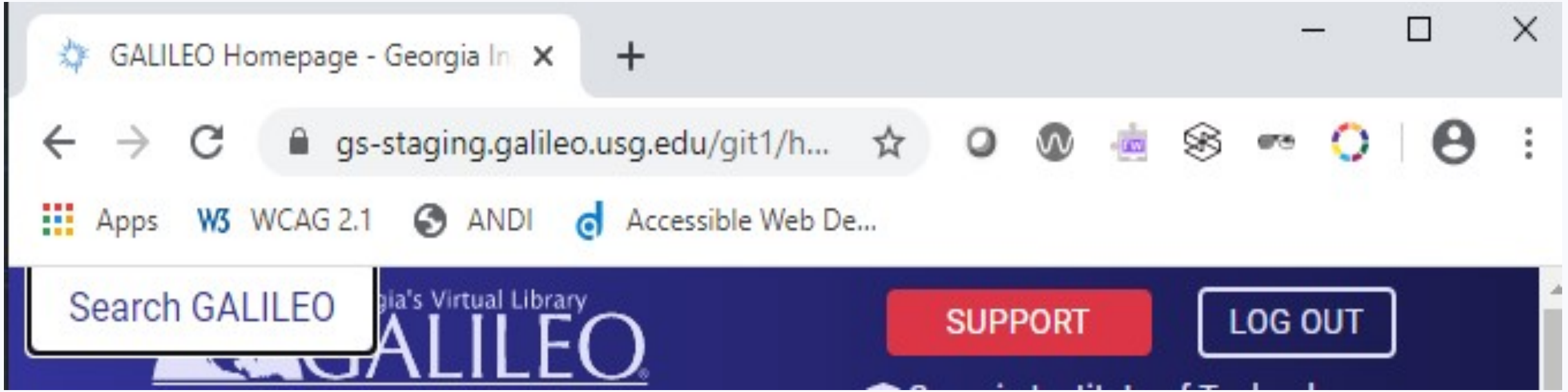
Guideline - **2.4.1 Bypass Blocks** (Level A): A mechanism is available to bypass blocks of content that are repeated on multiple Web pages.



Understandable – Labels or Instructions

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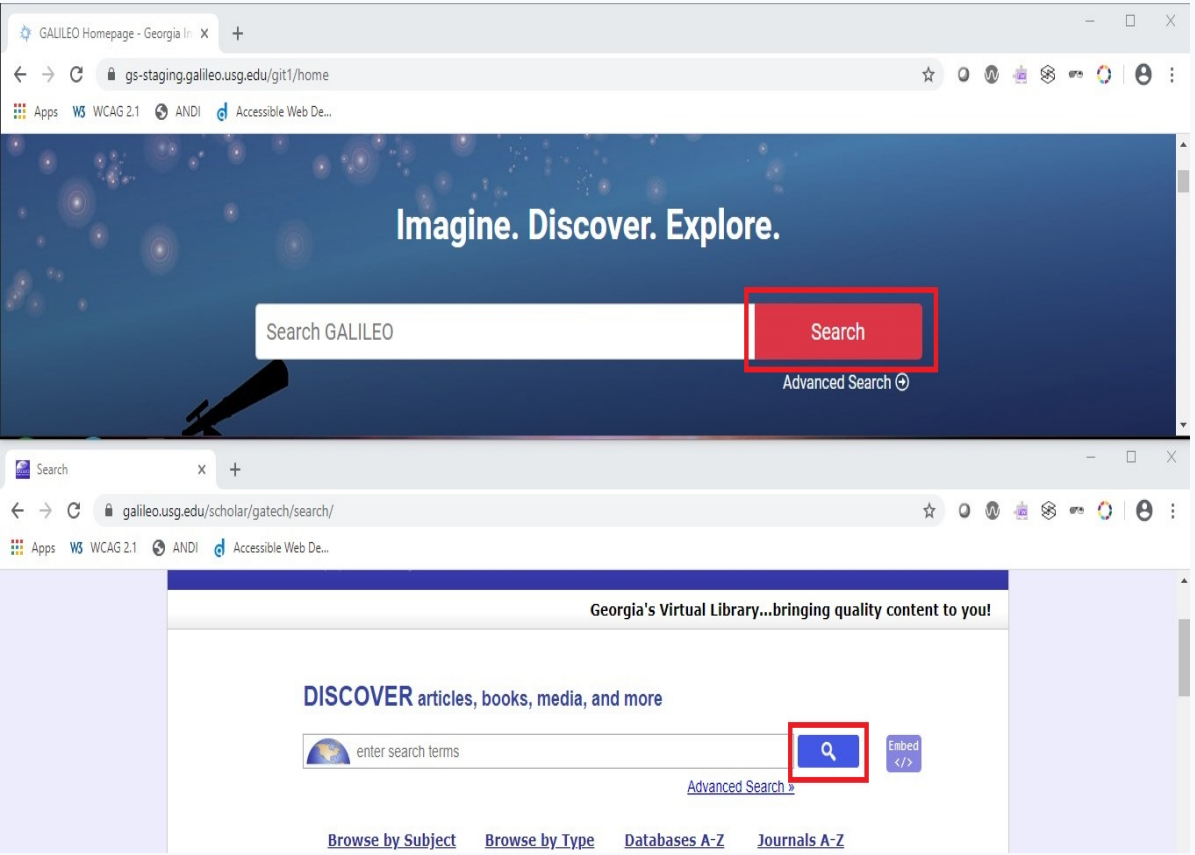
Guideline - **3.3.2 Labels or Instructions** (Level A): Labels or instructions are provided when content requires user input.



Understandable – Error Identification

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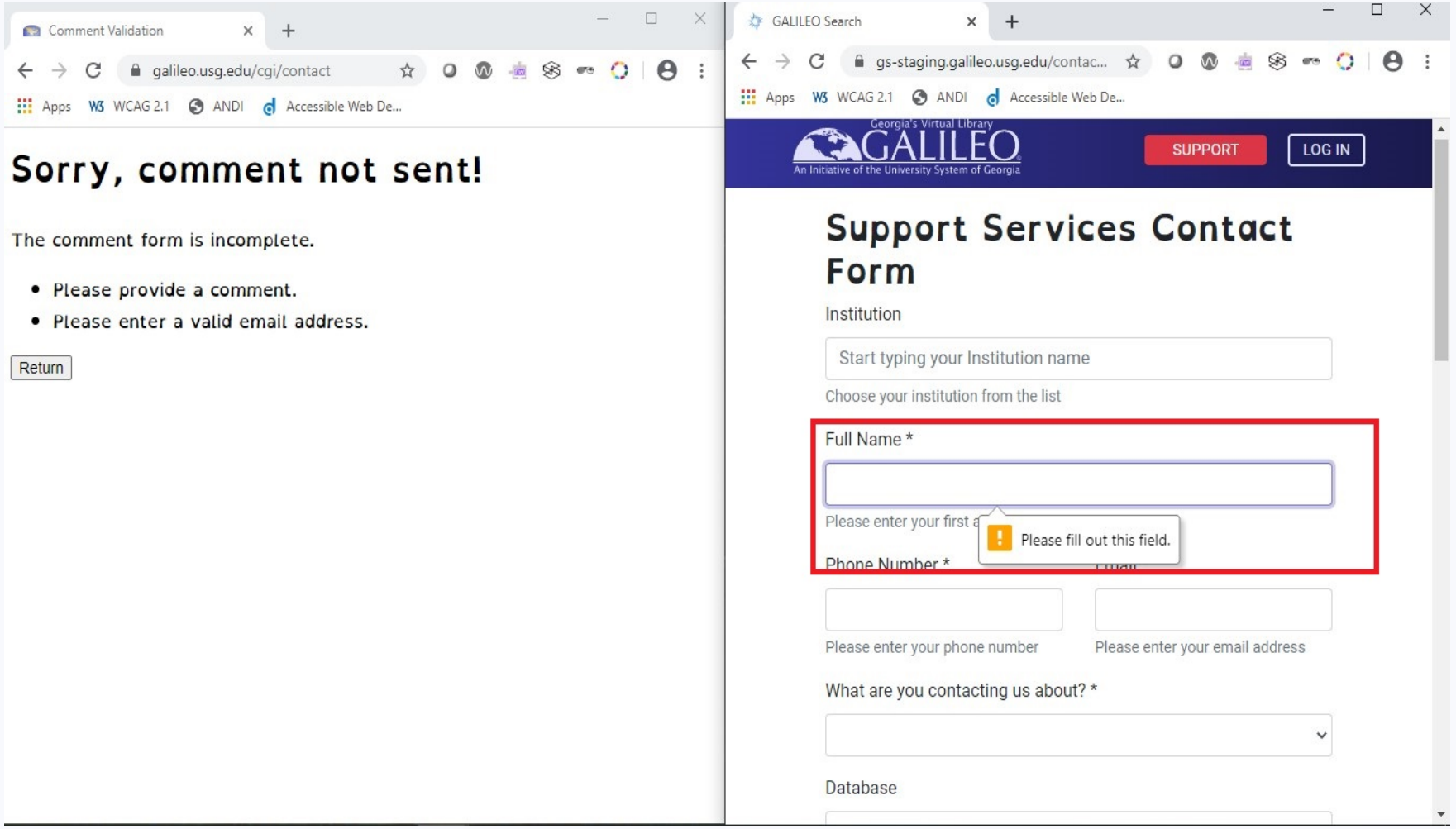
Guideline - [3.3.1 Error Identification] (Level A): If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text.



Robust – Inclusion of WAI-ARIA

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Guideline - **4.1.2 Name, Role, Value** (Level A): For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies.

- ARIA is used to identify interface components to screen reader users. This helps with custom coded elements that don't include HTML that is easily identified by AT.
- Previous version included minimal ARIA for custom components.

Questions???