

RAAV

Research Alliance
for Accessible Voting



ECA Summer Conference
July 31, 2014
Presented by: Tom Wilkey
Election Center

Research Alliance for Accessible Voting (RAAV)

- A study in response to Congressional mandate
- Grants awarded by EAC to two groups:
 - Clemson University
 - Information Technology Innovation Foundation (ITIF)

Goals of RAAV

Technologies & approaches that address a variety of barriers to voting:

- Disabilities as defined by the Americans with Disabilities Act (ADA)
- Lack of educational opportunity
- Difficulties due to aging or other life circumstances
- Limited English proficiency

RAAV Partners

- Clemson University – Project Manager
- The Center for Accessible Information (CAI)
- Association of Assistive Technology Act Programs (ATAP)
- Paraquad
- Tennessee Disability Coalition
- Election Center (National Association of Election Officials)
- Rutgers – School of Management and Labor Relations
- Election Data Services
- Carnegie Mellon University Silicon Valley

Why RAAV?

- Need to view the problem differently
- Study what works well and not so well; research to lead to new methods and new technologies
- Accessibility needs in elections increasing
- Ideas for immediate impact on elections
- Ideas for future impact on elections

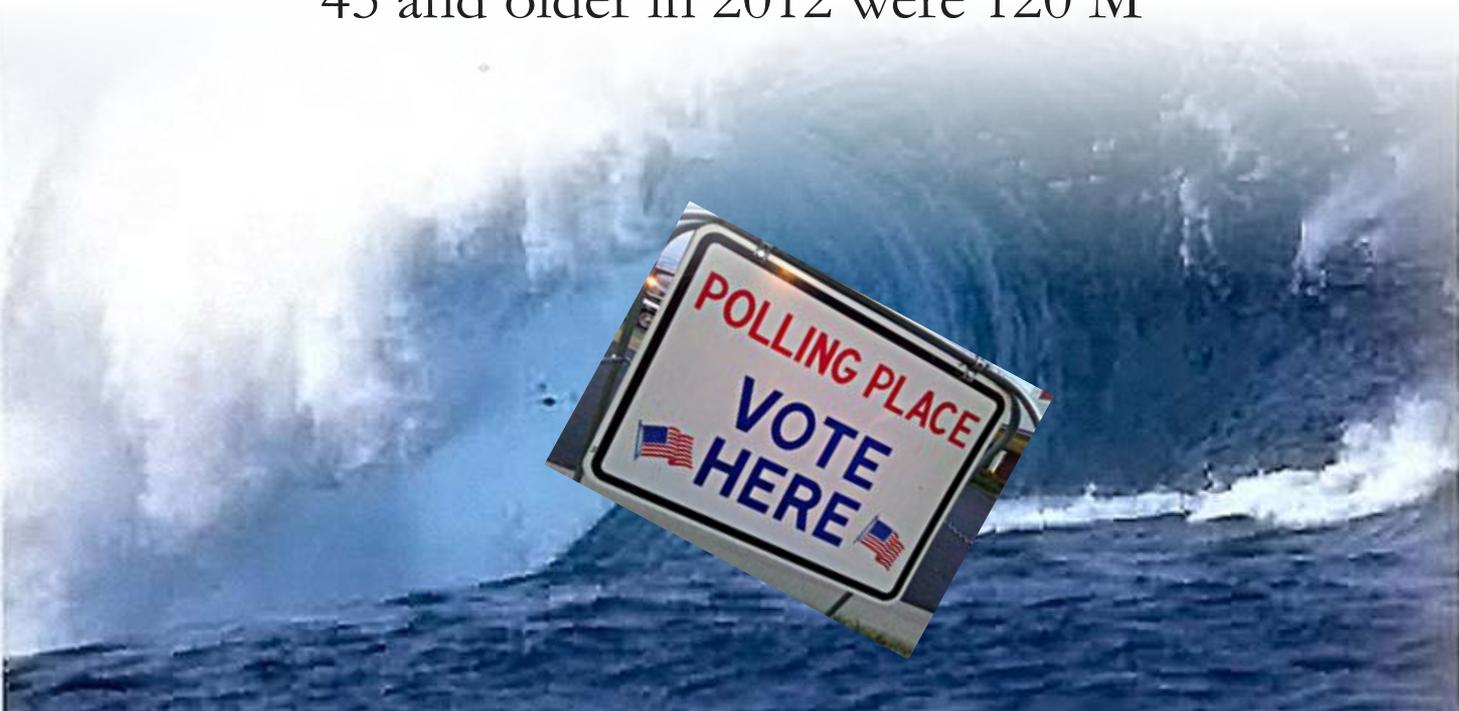
Numbers that Affect Accessibility Needs

People in 2012 with accessible needs ranged from:

- A low of 36 million
- To a high of 54 million

Numbers that Affect Accessibility Needs

45 and older in 1998 were 80 M
45 and older in 2012 were 120 M



What Does This Mean for Elections?

- Layouts of polling places
- Increased costs
- Seating in Polling Sites may be needed.
- Better tools to see ballots
- Mail in ballots more accessible
- Accessible machines may be needed by majority of voter
- Queue management; new wave of voting equipment can be used by all voters
- Changes to how we conduct elections

What Does This Mean for Elections?

**IT IS NOT
JUST POLL
WORKERS
THAT ARE
AGING.**



Survey Data: Key Results

- 15.6 million people with disabilities reported voting in the November 2012 elections.
- Voter turnout rate of people with disabilities was 6 percentage points lower than that of people without disabilities.
- There would be over 2 million more voters with disabilities if they voted at the same rate as people without disabilities
- Employed people with disabilities were just as likely as employed people without disabilities to vote
- The voter registration rate of people with disabilities was 2 percentage points lower

Key Results: Voting Difficulties

- Difficulty in voting at a polling place in 2012:
 - Almost one-third (30%) of voters with disabilities
 - 8% of voters without disabilities
- Difficulty in reading or seeing the ballot, or understanding how to vote or use voting equipment:
 - Almost one-third of the voters with disabilities required assistance in voting, most commonly given by election officials or family members

Cognitive Disabilities

“A disability that impacts an individual’s ability to access, process, or remember information”

Cognitive Disabilities

- Memory
- Problem-solving
- Attention
- Reading, linguistic, and verbal comprehension
- Math comprehension
- Visual comprehension

Cognitive Disabilities

Learning Disabilities:

- Lifelong disorders
 - Dyslexia or other reading disabilities
 - Attention Deficit Hyperactivity Disorder (ADHD)
 - Auditory processing disorder
 - Reading, Linguistic, and Verbal Comprehension

Cognitive Disabilities

Reading, Linguistic and Verbal Comprehension

For some people, reading text can be quite a challenge.

Be careful not to make things even harder by relying on non-literal communication and unstated assumptions.

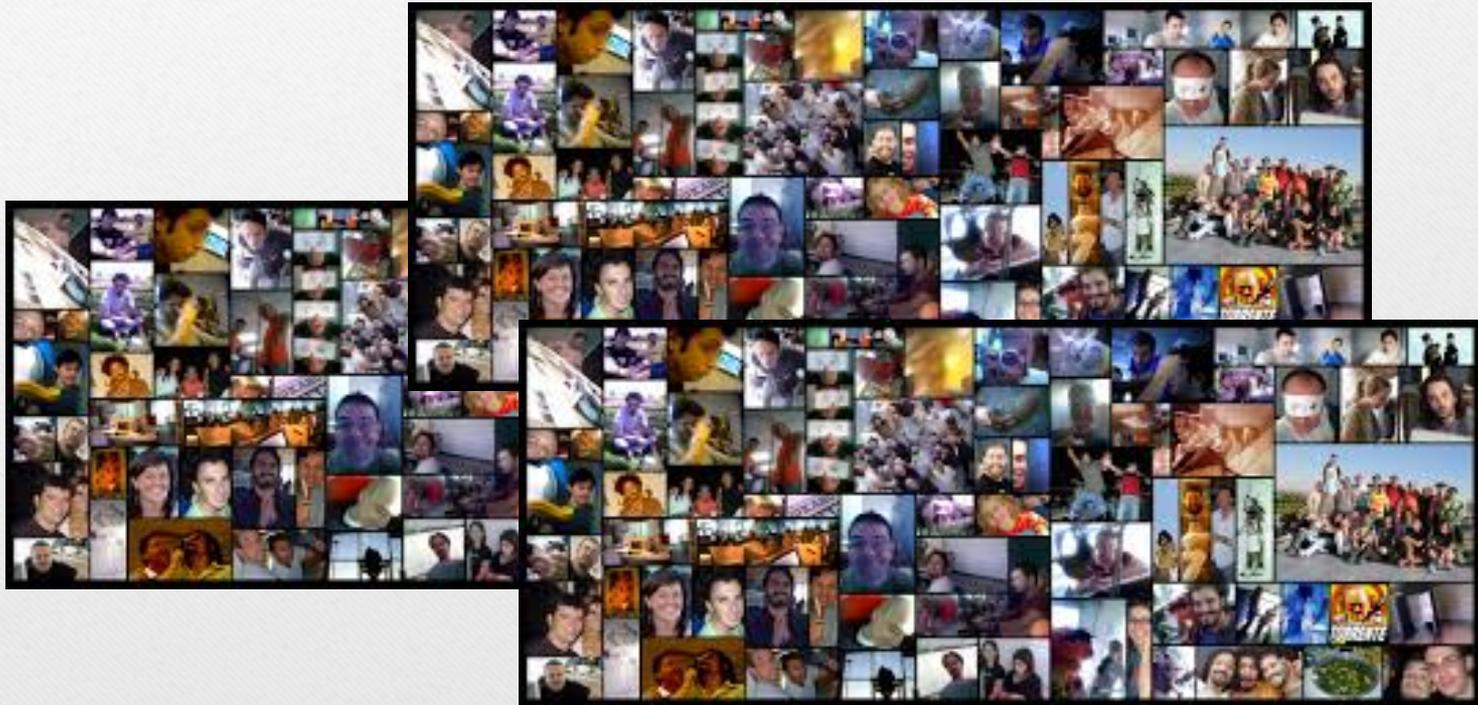
Cognitive Disabilities

Tob eornot obe



Cognitive Disabilities

Visual Comprehension



Cognitive Disabilities

Developmental Disability

- Speak to the person in clear sentences
- Don't use baby talk or talk down to people
- The person is an adult and can make his/her own decisions
- Person may be anxious to please
- May be difficult to make a quick decision

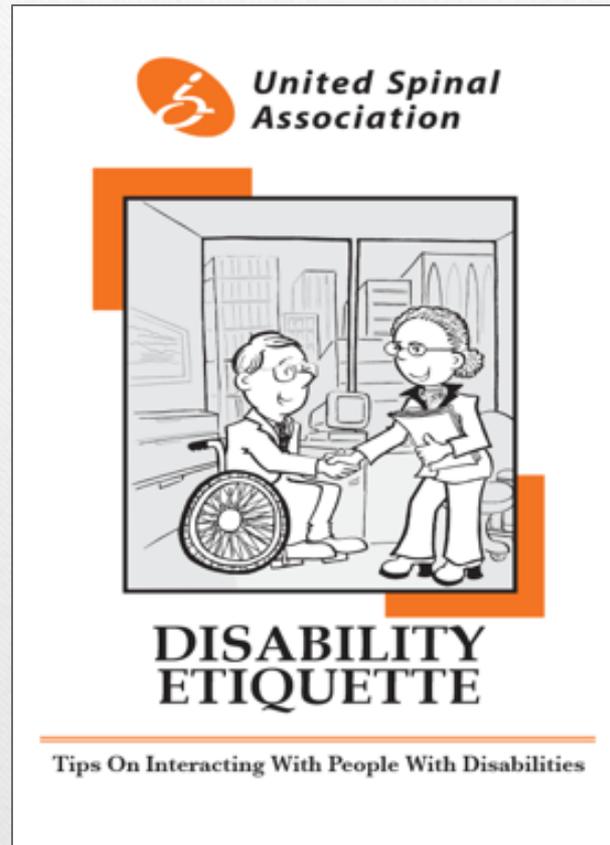
Making Voting Accessible

Some words voters may not understand or find confusing

- Absentee ballot
- Canvassing board
- Contests
- Legislation
- MVA
- Primary election
- Provisional ballot
- Ranked choice voting
- Remedial
- Unaffiliated
- Voter notification card
- Affiliate with a party
- Designate an agent
- Change parties
- Close of registrations
- Request deadline

Free Download

<http://www.unitedspinal.org/pdf/DisabilityEtiquette.pdf>



Making Voting Accessible

Scope of the literacy problem

- 23% of adults in the U.S. have low literacy competency skills
- 43% of adults in the U.S. read at the 5th Grade level
- Two out of every five older users read at the 5th grade level

Making Voting Accessible

Readers with lower literacy skills...

- Interpret words and visuals literally
- Read slowly, missing meaning
- Skip over hard words
- Miss the context – jump right in
- May have difficulty seeing principal features
- Tire quickly and may give up easily

Making Voting Accessible

Readers with higher literacy skills reading on the Web...

- Prefer information that looks easy to read through
- Prefer information that gets to the point
- May skip over long blocks of text
- Are overloaded with information and may not take time to read lengthy text
- Appreciate having unfamiliar terms and concepts put into plain language

Making Voting Accessible

Ginny Redish and Dana Chisnell (2009)
demonstrated the crucial role of plain language
in ballot instructions for successful voting.

Field Guides: <http://www.civicdesigning.org/fieldguides>

Copyrighted Material

Janice (Ginny) Redish

Letting

Go

of the

Words

Writing Web
Content that Works



Second Edition

Making Voting Accessible

Making it Plain: Eliminating Ambiguous Words

- | | | | |
|---------|---------|--------|----------|
| ✓ break | ✓ light | ✓ draw | ✓ call |
| ✓ cut | ✓ set | ✓ take | ✓ carry |
| ✓ run | ✓ hold | ✓ fall | ✓ charge |
| ✓ play | ✓ clear | ✓ pass | ✓ point |
| ✓ make | ✓ give | ✓ head | ✓ duck |

Making Voting Accessible

Making it Plain

Language tweaks that impacted voter success:

- Reducing the amount of text on key screens

Making Voting Accessible

Button Text



Several participants struggled with the “see additional candidates” button

To ease use:

- Text was simplified
- Jargon was eliminated

Making Voting Accessible

Review Screen Text



City Council

Barbara Shry Yellow

Carol Barker Yellow

You could have voted for 4 candidates, but you only voted for 2.
If you want to vote for more, touch here.

Water Commissioners

You did not vote in this race.
If you want to vote in this race, touch here.



City Council

Barbara Shry Yellow

Carol Barker Yellow

You voted for 2 people. You can vote for 2 more.
If you want to vote for more, touch here.

Water Commissioners

You did not vote for anyone.
If you want to vote, touch here.

Part of Sample Text

After noting confusion from users, text on the review screen was changed:

“You could have voted for 4 candidates and you only voted for 2”

Became

“You voted for 2 people. You can vote for 2 more.”

The change

- reduced election jargon
- focused on actions
- moved from familiar to new

Making Voting Accessible

Cast Your Ballot

Are you sure you have finished voting?

Note: Once you press the **Vote** button, you will not be able to make any more changes.

If you want to make changes, touch the **Return to ballot** button.

If you are ready to cast your ballot, touch the **Vote** button.

Return to ballot

Vote



Are you finished?

If you want to make changes, touch the **Return to ballot** button.

If you are ready to cast your ballot, touch the **Vote** button.

Return to ballot

Vote

Participants were confused and sometimes anxious about this page; they backed away from casting their vote.

Focusing the text on the message and the choice, rather than on the danger of making a mistake, allowed for easier processing and more confidence in voting.

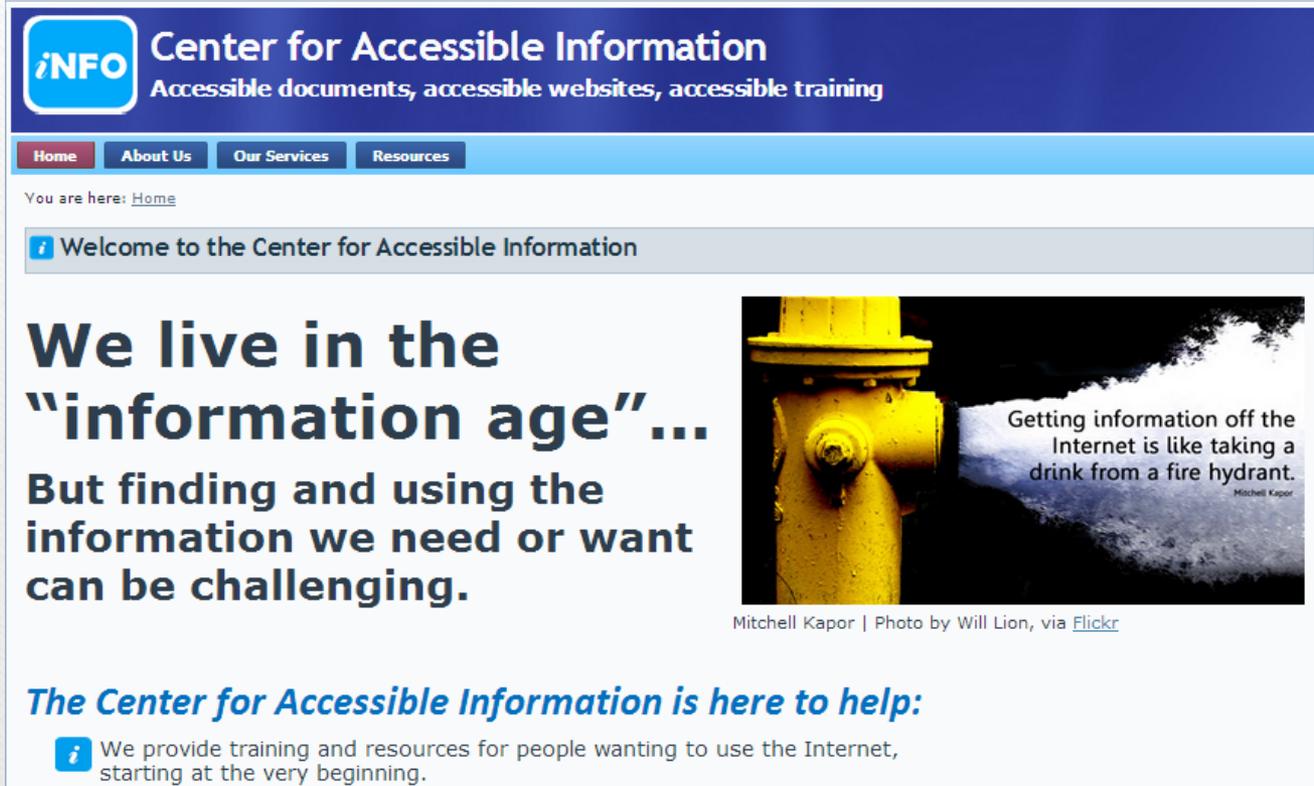


Research Alliance
for Accessible Voting



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- Accessible voting is about more than voting machines, it includes:
 - physical access,
 - integration with individual voters' assistive technology, and
 - information available in language and formats that meet the needs of all.

www.AccessibleInfo.org



The screenshot shows the homepage of the Center for Accessible Information. At the top is a dark blue header with the 'iNFO' logo and the text 'Center for Accessible Information' and 'Accessible documents, accessible websites, accessible training'. Below this is a light blue navigation bar with buttons for 'Home', 'About Us', 'Our Services', and 'Resources'. A breadcrumb trail indicates 'You are here: Home'. A grey banner contains the text 'Welcome to the Center for Accessible Information'. The main content area features a large heading: 'We live in the "information age"... But finding and using the information we need or want can be challenging.' To the right is a photograph of a yellow fire hydrant with a stream of water spraying out. Overlaid on the water is the text: 'Getting information off the Internet is like taking a drink from a fire hydrant. Mitchell Kapor'. Below the photo is the caption: 'Mitchell Kapor | Photo by Will Lion, via Flickr'. At the bottom, a blue heading reads 'The Center for Accessible Information is here to help:', followed by an information icon and the text: 'We provide training and resources for people wanting to use the Internet, starting at the very beginning.'

iNFO Center for Accessible Information
Accessible documents, accessible websites, accessible training

[Home](#) [About Us](#) [Our Services](#) [Resources](#)

You are here: [Home](#)

i Welcome to the Center for Accessible Information

We live in the "information age"...

But finding and using the information we need or want can be challenging.



Getting information off the Internet is like taking a drink from a fire hydrant.
Mitchell Kapor

Mitchell Kapor | Photo by Will Lion, via [Flickr](#)

The Center for Accessible Information is here to help:

i We provide training and resources for people wanting to use the Internet, starting at the very beginning.

www.AccessibleVoting.org



The screenshot shows the homepage of the Research Alliance for Accessible Voting (RAAV). The header features the RAAV logo in large red letters and the full name in white on a blue background, accompanied by a checkmark icon. Below the header is a red navigation bar with links for Home, About Us, Library, Events, Project News, and How to Use This Site. The main content area has a blue banner with the text "Welcome to the Research Alliance for Accessible Voting" and a search box. The primary content is titled "The Goals of Accessible Voting" and lists three bullet points with checkmarks. Below this is a video player showing a woman speaking, with the caption "just to have me tap." To the right, there is a "Latest news" section with several blue buttons containing links to various news items. At the bottom right, there is a "Check These Out" section with more blue buttons for additional resources.

RAAV Research Alliance for Accessible Voting

Home About Us Library Events Project News How to Use This Site

You are here: [Home](#)

Welcome to the Research Alliance for Accessible Voting

The Goals of Accessible Voting

- ✓ Every voter can vote independently and privately, using the systems used by other voters.
- ✓ All voters must be able to get to, and move around inside, all polling places.
- ✓ Polling places must include voting machines or methods that work for all voters.

Nancy Ward Post SABE Election Interview with Ca... 

just to have me tap.

0:00 / 2:33

Search

Latest news

- [IFES releases report on international voting access](#)
- [Juan Gilbert to Speak at FCC](#)
- [Digital voting machines are aging out of use](#)
- [Rutgers report on 2012 voter experience is available.](#)
- [SABE releases Voter Education Toolkit](#)

Powered by [iSpeech](#)

Check These Out

- [Great new poll worker training video](#)
- [The Power of VOTING! Voting Guide by the National](#)

www.AccessibleVoting.org

The image shows a screenshot of the RAAV website. At the top, the logo "RAAV" is displayed in large, bold, red letters with a white outline, followed by the text "Research Alliance for Accessible Voting" in white on a dark blue background. To the right of the logo is a black square icon containing a white checkmark. Below the header is a dark red navigation bar with white text for "Home", "About Us", "Library", "Events", "Project News", and "How to Use This Site". The "Library" menu is open, showing a list of resource categories: "All Resources", "Advocate Resources", "Candidate Resources", "Election Official Resources", "Person With a Disability Resources", "Poll Worker Resources", "Researcher Resources", and "Web Designer Resources". A large green arrow points from the right side of the page towards the "Library" menu. On the left side of the page, there is a "You are here: Home" breadcrumb, a "Welcome to the Research" banner, and a section titled "The Goals" with three bullet points: "Every voter can vote using the systems used", "All voters must be able to vote inside, all polling places", and "Polling places must use methods that work for". Below the goals is a video player showing a woman speaking, with the title "Nancy Ward Post SAE". On the right side, there is a search bar, a "Latest news" section with several news items, and a "Check These Out" button. At the bottom right, there is a "Listen" button and the text "Powered by iSpeech".

RAAV Research Alliance for Accessible Voting

Home About Us **Library** Events Project News How to Use This Site

You are here: Home

Welcome to the Research

The Goals

- Every voter can vote using the systems used
- All voters must be able to vote inside, all polling places
- Polling places must use methods that work for

Nancy Ward Post SAE

Search

Latest news

Young Access Decision in California

RAAV launches YouTube channel

RAAV Polling Place Access Seminars Scheduled

RAAV Researchers to Speak at Presidential Commission on Election ...

Listen

Powered by iSpeech

Check These Out



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Acknowledgements

This material is based upon work supported by the U.S. Election Assistance Commission (EAC). Opinions or points of views expressed in this document are those of the authors and do not necessarily reflect the official position of, or a position that is endorsed by the EAC or the Federal government.