Pushing on the Frontier:
Disability Access and the Future of Libraries

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Do you know what the #1 thing you can do right now to make library spaces more accessible?

Always Use the Microphone (1/3)

An accessible library future means we **always use the microphone** whenever one is available:

- At conferences
- At large staff meetings
- At campus events

Always Use the Microphone (2/3)

But we need people to advocate for microphones:

- Demand sound systems, especially for conferences

- Fund support for personnel and ongoing technology maintenance

- Give trainings on how to use a microphone and running systems

Always Use the Microphone (3/3)

Benefits:

- Supports many people with auditory and attentional issues
- Benefits people with temporary hearing issues
- Is a first step to live captioning (advocate for that next!)

Any library person can advocate for microphone usage.

It's a small change with big implications.

But we can do more with the right actions.

That's what I'm hear to discuss today.

Introducing Myself: My Job

I am the Inclusion and Accessibility Librarian (first position of its kind) at Syracuse University Libraries.

Duties include:

- Critical leadership role in fostering an inclusive culture and expanding the Libraries' accessibility services

- Guiding and supporting efforts to promote inclusion and accessibility including planning, assessment, and advocacy

- Be the Libraries' expert on accessibility and oversee the Libraries' assistive technology and accessibility services

Introducing Myself: My Background

PhD (2011) in Computer Science from University of Washington with a diverse foray into classes and research in many fields:

- Education Research
- Reading Psychology
- Disability Studies

- Communication Theory
- Typography (Print and Digital)
- Digital Literacies

Dissertation:

[Why Adults with Dyslexia Tend Not to Use Assistive Reading Technologies](#)

Introducing Myself: My Library Work

In 2014, I started working as a Web Application Specialist at the University of Washington Libraries.
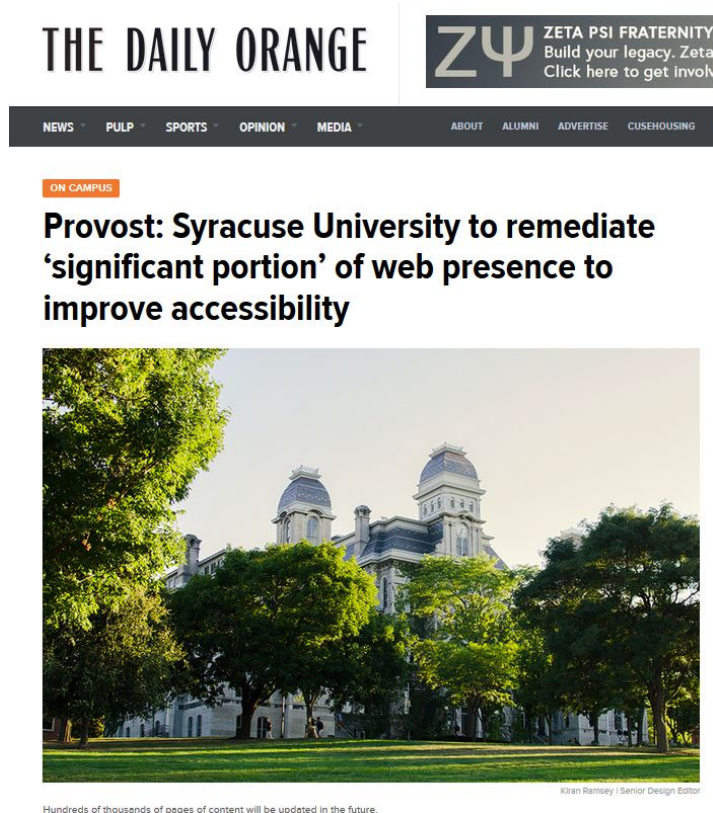
Naturally incorporated accessibility into my work:

- Fixed accessibility issues in our applications, including Primo
- Shared code about accessibility to the Orbis Cascade Alliance
- Consulted with Ex Libris regarding the new Primo User Interface
- Presented on accessibility at libtech conferences like Code4Lib

Currently enrolled in the MLIS program at Syracuse University.

Office of Civil Rights Accessibility Complaint (1/2)

In late 2017, the Department of Education's Office of Civil Rights issued an accessibility complaint to Syracuse University.

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ON CAMPUS

Provost: Syracuse University to remediate 'significant portion' of web presence to improve accessibility

Kiran Ramsey | Senior Design Editor

Hundreds of thousands of pages of content will be updated in the future.

This triggered a comprehensive audit and remediation of **all of our web content**:

- Library website...
- Discovery systems...
- LibGuides...
- Repositories...
- All online Word, PowerPoint, and PDF files...

Office of Civil Rights Accessibility Complaint (2/2)

Remediation took a massive collective effort over two months:

- Held 41+ total open lab hours for accessibility trainings/consultations
- Cleanup led to 100s of documents being remediated or removed
- 3000+ accessibility issues removed from our LibGuide pages
- Two archives (Pan Am 103 and SURFACE) redesigned for accessibility

This was a comprehensive effort that no single person could have completed in that time frame.

Still, many thanks go to our then web librarian, Pam Thomas.

So what is the future of accessibility (disability access) in libraries?

A Great Paper I Recommend (1/2)

"The Invisible Client: Meeting the Needs of Persons with Learning Disabilities"

by Darlene E. Weingard

A Great Paper I Recommend (2/2)

The paper covers a wide array of topics:

- Describing the user population
- Providing examples of some libraries' current efforts
- Distinguishing between support for children and adults
- Highlighting current and new technologies than can help
- Listing existing issues for libraries to address as a community.

But I said there was a punchline...

Thirty Years of the Same Advice

Full citation:

Weingand, D. E. (1990). The invisible client: Meeting the needs of persons with learning disabilities. *The Reference Librarian*, 14(31), 77-88.

I could take this article, update some of the references to technology and laws, and easily get this republished.

This paper is a symptom of a larger issue in accessibility advocacy.

Much of accessibility advocacy focuses on just teaching the basics. We need to engage in more efforts at all levels of accessibility.

I am now saying we should stop al webinars, tutorials, workshops, presentations, etc. that teach the basics of web accessibility.

At [Code4Lib 2019](#) in San Jose, CA, we had multiple talks and conversations on accessibility

Such trainings give us the advocates, allies, and armies we need to put forth accessible change.

The "problem" is that we need to start putting these interested parties to use in this battle.

It's really hard to avoid war metaphors when discussing the need to take action on accessibility.

Please forgive my passion making it hard to find better words.

Before we can discuss what Libraries can or should be doing for an accessible future, we need to discuss the reasons behind accessibility being so challenging.

Challenge: Accessibility is BIG (1/3)

Consider the Library and all the parts that need to be accessible:

- Our physical spaces
- Our people
- Our holdings
- Our technology

Challenge: Accessibility is BIG (2/3)

But now refine those areas further:

- Our physical spaces
  - Entrances
  - Stacks
  - Bathrooms
- Our people
  - Patrons
  - Staff
- Our holdings
  - Physical
  - Electronic
- Our technology
  - Hardware
  - Homegrown applications
  - Vendor applications

Challenge: Accessibility is BIG (3/3)

We have many working parts with further working parts underneath.

We have multiple stakeholders involved both internal and external to the libraries.

Each part has different challenges to address.

It's easy to be overwhelmed.

And oops, we forgot to mention accessibility in services, policies, events, and probably a lot more aspects too.

Library accessibility requires the whole library!

Challenge: Disability is Diverse

We break down disability often by type (mobility, sensory, cognitive) but each individual exhibits a gamut of strengths and difficulties.

What does it mean for something to be truly accessible?
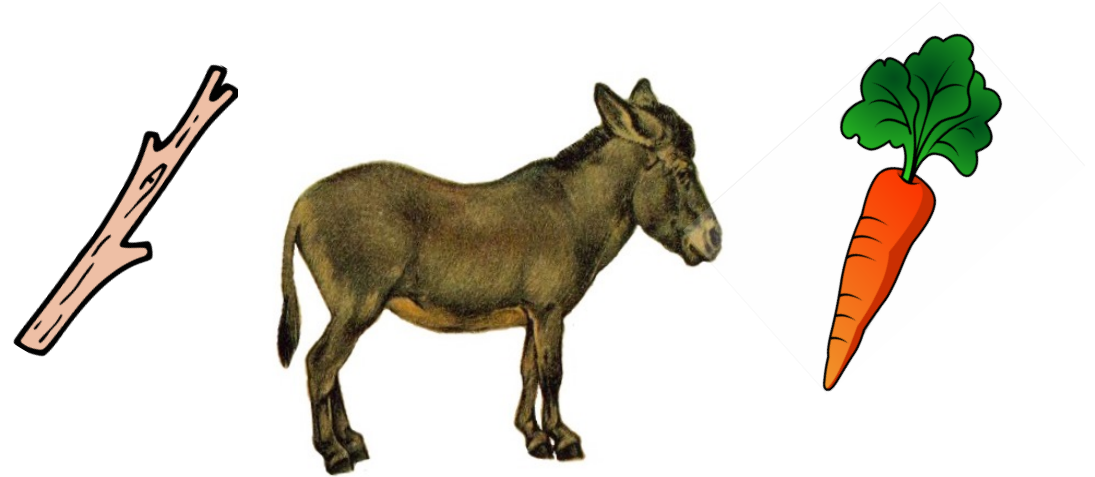
Must everything work for everyone?

There are reasons we talk about reasonable accommodations.

Challenge: Carrot versus Stick

We often have to push people to make things accessible:

- Carrot Method:
  Accessibility is a good thing

- Stick Method:
  Punishment if you don't

People prefer the carrot method but we often get agreement but no follow-through. Stick gets follow-through but complaints.

Challenge: So Many Accessibility Myths

MYTH: If a product is inaccessible, we can't ever use it.

- Reasonable accommodations suffice, and some exceptions exist.
- When should we start burning our books?

MYTH: Accessibility standards are objective and unbiased.

- They are based on lab settings under strict controls.
- Humans and usage contexts vary.
- WCAG overwhelmingly addresses visual issues and has little to say about cognitive disability.

With the challenges in mind, what about the future of disability access in libraries?

The rest of this talk focuses on **services**, **technology**, and **holdings**. Despite that, I want to speak briefly about buildings and people.

Library Buildings – The New

The American with Disabilities Act (ADA) was passed 29 years ago.

There is no excuse now for new buildings to lack ramps, motorized doors, accessible restrooms, elevators, and more.

It still happens though. You can prevent it:

- Involve disabled patrons and staff in building design reviews from the start (easier to catch hard to undo errors early!)
- Treat the ADA guidelines as a minimum. Aim to go beyond.

Library Buildings – The Old

You can learn to make any existing buildings better. You just need to ask the right people.

Ask disabled patrons do accessibility reviews of key locations:

- Can a blind patron navigate from entrance to the info desk?
- Are the stacks wide enough to accommodate wheelchairs?
- Is the modular furniture always left in a chaotic mess?
- Do your Braille signs say what you hope they say?

Learn from your Patrons

Recently, we held a staff training in which a panel of library patrons with disabilities discussed their experiences with SU Libraries.

- Most attended training we ever had
- The audience AND panelists stayed late for more discussion
- Lots of ideas generated (just need to follow through)

Lesson: Learn from your patrons

Staff are People Too

Accessibility applies to all people, including library staff.

Do not neglect them when considering:

- Designing accommodation policies
- Purchasing furniture
- Adopting software

Most importantly, respect work-life balance and promote self-care and well being for physical and mental health.

#LISMentalHealth Week was February 18 - 24.

Check the twitter feed for what happened and be inspired to do work throughout the year.

The Future

Quite simply, libraries and other institutions will be facing lawsuits, complaints, and policy changes about accessibility.

How we will fare depends on how we starting acting now.

Complaints and Lawsuits

Despite differing priorities from the presidency, federal accessibility complaints from the Offices of Civil Rights are increasing in number.

More legal gains keep coming in from the courts, including the recent case against Domino's phone app being inaccessible.

(The accessibility of pizza is a legal right!!!)

Many institutions have responded to these complaints by adopting comprehensive accessibility policies regarding ICT purchasing.

Syracuse University ICT Accessibility Policy

[Information and Communication Technology (ICT) Accessibility Policy](#)

- Went into effect on January 1, 2018
- All new ICT purchases must meet Section 508 / WCAG 2.x AA
- Renewals of licensed ICT products must also meet standards
- Services associated with technologies must be accessible
- All course materials should be accessible per standards

Implications for SU Libraries

- IT purchases and renewals have added requirement of testing

- Faculty now asking libraries for help in acquiring accessible materials for their classes

- New services need to provide accommodations for common tasks (retrieving books from shelves, interlibrary loan, etc.)

- And the harsh reality that so many vendor products, databases, journals, etc. are inaccessible.

What do we do? Be "resilient!"

Shelf Retrieval Services

Patrons can request that a library staff member fetch an item from the library shelves at any time.

- Already existed prior to policy but has new value.
- Still lacks the benefit of browsing the shelf to find other titles.

Alternative Formatting Service

- Started by Ron Figueroa (ILL Manager) and Stephanie Helsher (then ILL supervisor) the year before I started

- Any patron registered as having a print disability can request for free any SU library owned material or ILL item be remediated into an accessible, digital format (EPUB or PDF)

- Only equivalent programs we know of is one at UC Berkeley libraries and one that is part of Ontario academic libraries

Accessible Physical Course Reserves

- Starting to proactively remediate all physical items placed on course reserves in case students need accessible versions
- Still figuring out how to handle checkout of remediated versions:
  - Maintaining a list at circulation as to who is eligible for access?
  - Different checkout durations to account for disability?
  - What about copying of material?

Caveats about Our Reforming Services

- Remediation is mostly done through third party vendors

- Currently funded but not sustainable

- Requires strong communication workflows with campus disability services for eligibility

- Delivery time is slower than desired (ILL + remediation time)

- Increased concerns about copyright and fair use.

Gray Area of Fair Use, Copyright, and Accessibility

Copyright law in a nutshell:

- Fair use for educational purposes is complicated and not always handled properly at universities

- Right to modification of material is often forbidden

- Exception:
  The Chafee Amendment allows for modifications (including DRM stripping) if needed for an individual's specific accessibility needs

Supporting Accessibility of Course Materials

SU policy states that all course materials should be accessible:

- But does copyright and fair use allow for this?

- Is remediation a modification?

This is a legal gray area with no existing case law.

Blackboard Ally

Ally is a software extension that takes any files uploaded to a CMS:

- Performs an accessibility evaluation of the format
- Can do some auto fixes to that file for improved accessibility and can convert the file to other formats, including an MP3

Been active at SU for about a year:

- Faculty like the accessibility reporting but still unskilled in fixing
- Students love the ability to reformat to MP3
- Auto-fixes to accessibility are so-so

Is having Ally installed violating fair use and copyright?

This is an open dilemma we're trying to work out.

My take:

- Course materials are behind authentication so somewhat secure
- Copying and distribution is not prevented
- We need to include a rights usage statement in Ally-modified materials (based on similar to Bookshare)
- Doing the above puts us in a good faith position of saying that providing accessibility is a benefit and should be part of fair use

What about sustaining funding for reformatting?

Can all libraries do this?

What about expertise and technology needed?

What is Bookshare?

Bookshare is an amazing non-profit that provides accessible texts:

- Has negotiations with many publishers to maintain a repository of remediated fiction, K-12 textbooks, magazines, etc.

- Holdings are of less use in higher education

- Only open to people who can demonstrate proof of a print disability (visual disability or reading disability but not ADD)

- Catalog could use some librarianship (i.e. better metadata, feeds for sharing with other discovery systems)

Could libraries do this too?

Repositories of Remediated Materials

We cannot continue with redundant remediation efforts.

We need to somehow share these efforts while respecting rights.

Can we do this? Some are trying (and succeeding):

- The Council of Ontario Universities' Accessible Content Portal shares remediated texts to eligible students in their system

- Recent Mellon Grant for "Federating Repositories of Accessible Materials for Higher Education" for several university libraries is underway. Let by John Unsworth (VCU) and others.

What if for journal articles, we push up to the publishers the versions we remediate?

This makes the accessible versions available to everyone via their own systems.

The Vendors and Their Content (1/3)

There's a wise saying in educational accessibility circles:

"There's no point in building a state-of-the-art inclusive classroom on the third floor of a building with no elevators."

The Vendors and Their Content (2/3)

While we would eventually want vendors to make their articles, journals, databases, and more accessible, they still need to make their websites accessible.

We can't simply shop for a more accessible alternative due to the strangleholds we see from many of the big parties.
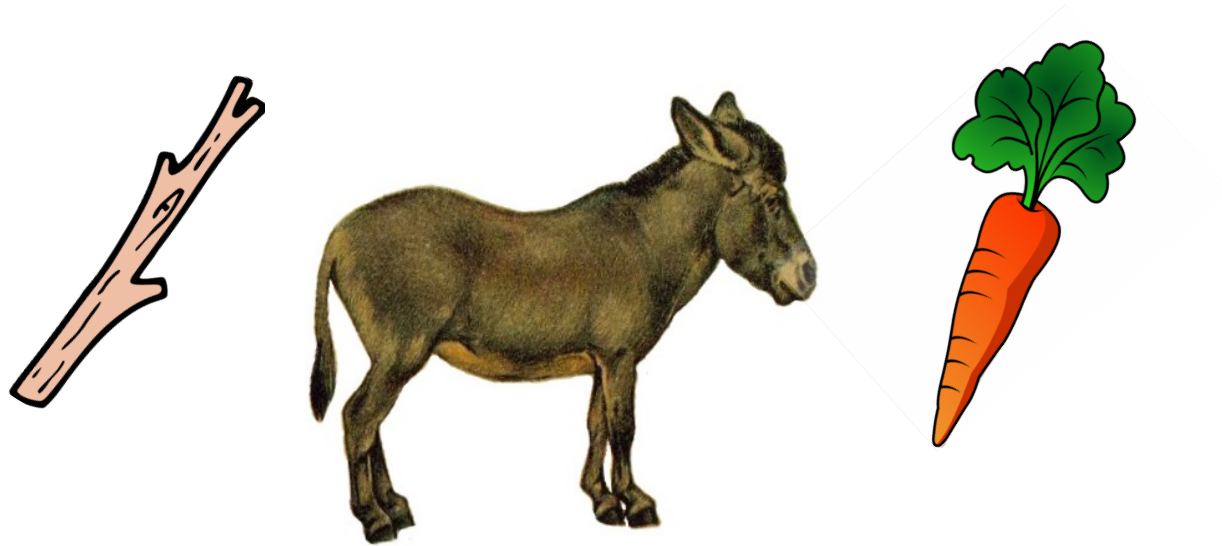
How can we pressure them to improve?

Rethinking the Carrot and the Stick

We know the Carrot Approach gives good feels and little results.

The Stick Method involves time, money, and lawyers .

Maybe we can rethink this and be the stubborn ~~ass~~ mule?

The Vendors and Their Content (3/3)

Let's hold vendors to the passage of time.

- WCAG 1.0 came out in May 1999, WCAG 2.0 in 2008.
- There are lots of basic accessibility bits vendors should have learned by now.
- They've had 20 years to learn to use HTML headings properly. If they don't, let's change our licensing to demand a discount.
- They've been stubborn to basic efforts for decades, we can do the same with even greater stubbornness!!!

Through a thousand cuts, we will push vendors to meet simple goals of accessibility until they get with the act.

But no single institution can do this alone...

Library Community for Accessibility Advocacy (1/2)

All library institutions need to participate as they can with advocating for accessibility:

- Sharing accessibility reviews of technologies and e-resources
- Joint efforts to demand support fixes for accessibility issues
- Figuring out the vagaries of fair use, rights, and accessibility

Library Community for Accessibility Advocacy (2/2)

Similar shared efforts have happened before, such as the Big Ten Alliance doing reviews of ebook services and sharing license terms.

I'm taking a stab at a larger effort: Lib4A11y (lib for ally)

It's just a mailing list for now, but more will come soon.

Join at https://tinyurl.com/lib4a11y

More to Discuss

Libraries will need to act on accessibility in many other areas that I sadly lack the time to go into detail:

- Format Accessibility Standards:
  Did you know the PDF standard has no support for footnotes?

- Open Educational Materials:
  Why should any OER materials go out without being compliant?

- Repositories, special collections, archives:
  Who bears the responsibility of creating accessible content?
  Are the standards sufficient to support patrons?

In Conclusion

I gave my first library talk at Code4Lib 2015 in Portland Oregon.

I wish to end with how that talk started:

Web accessibility is important.

If you disagree... you're WRONG!

Thank You

Syracuse University Libraries

University of Washington Libraries

Miguel Figueroa

Ellen Bartlett

Francie

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Questions?

Additional Slides:

- Basics of Keyboard Testing

Web accessibility is important.

    If you disagree... you're WRONG!
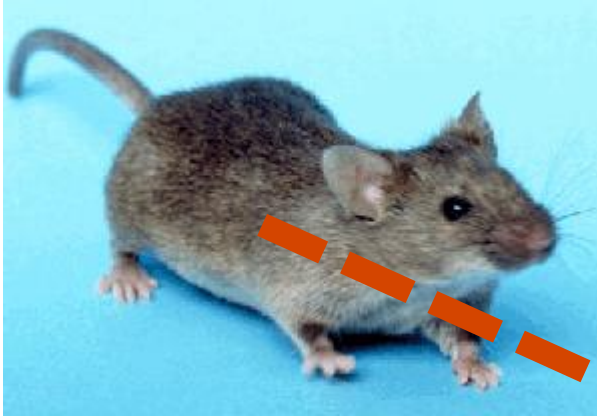
Some accessibility requires expert knowledge

    ARIA markup

    Writing good ALT text

    Knowing how to use a screen reader

Here's a simple but critical accessibility test that any web user can do (not just developers).

Consider your mouse, touchpad, etc.

Imagine it's a
real mouse...

... and you have **a**
cat nearby

In other words…

YOUR MOUSE IS NO MORE!

Without the mouse, try to use the site using the keyboard:

Tab	Move to next link, button, or form field
Shift + Tab	Move to previous link, button, etc.
Enter	Trigger current link or button
Space	Trigger interactive element (dropdown menus, buttons, checkboxes, etc.)
Up / Down	Navigate menus, choose radio buttons, adjust number inputs
Right / Left	Navigate menus, adjust sliders, etc.
Escape	Close menu or modal

Ask yourself:

Is it the **same experience** as using a mouse?

Can you **navigate to everything** on the page?

Can you **manipulate everything**?

Do you always **know where you are**?

Any **hidden elements** you can tab to?

Can you **see** those hidden elements?

Is the **pattern of navigation** smooth or chaotic?
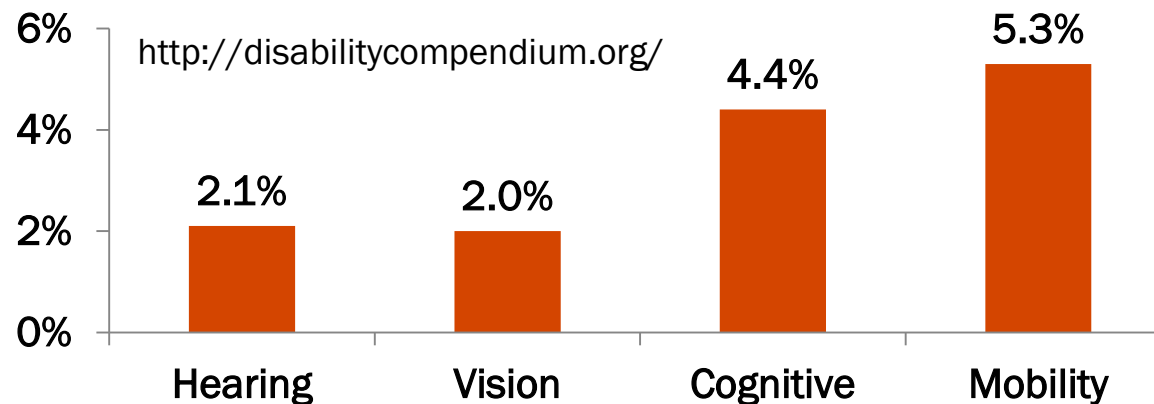
This is keyboard accessibility.

Why Keyboard Accessibility Matters

When we think about web accessibility, we tend to focus on blind and low-vision users.

Physical impairments that impact mobility (fine and gross motor control) are more common:

Arthritis, Paralysis, Multiple Sclerosis, Lupus, ALS, Cerebral Palsy, Muscular Dystrophy, etc.

Prevalence of Types of Disabilities Ages 18-64 in the US (2013)

http://disabilitycompendium.org/

Category	Percentage
Hearing	2.1%
Vision	2.0%
Cognitive	4.4%
Mobility	5.3%

More Benefits of Keyboard Accessibility

Blind users and mice do not get along.

(no… blind people are not cats)

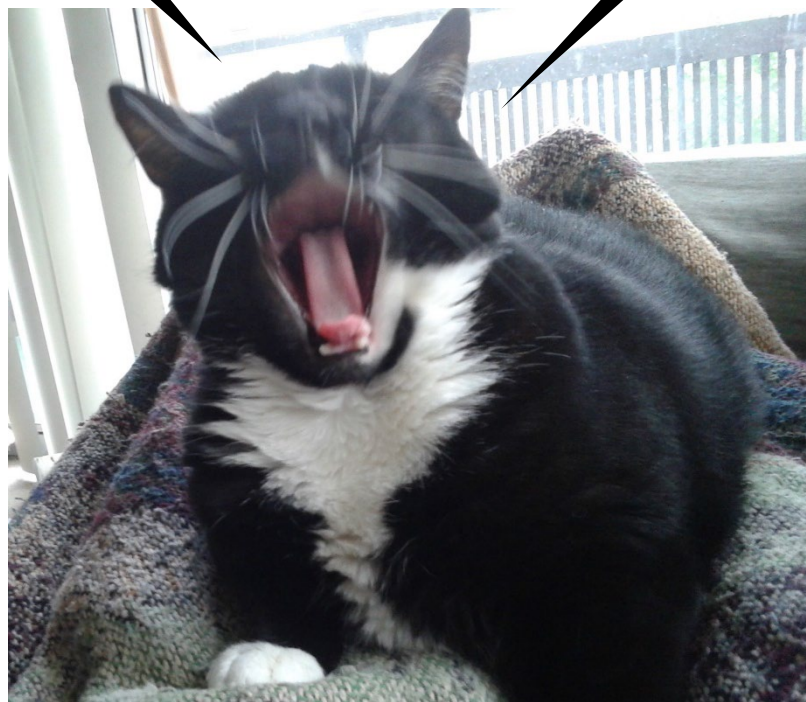A keyboard accessible page will cooperate better with screen readers!

And there are even weird folks who like to mix it up between mouse and keyboard interactions.

(I am weird)

Keyboard accessibility is **awesome**...

...but it can be even more **AWESOME**!!!

A Challenge to You (and Vendors)

Imagine your local IT Services or a vendor offers up a new website and shows off its swanky new features...

1. Ask them "Is it accessible?"

2. No matter their answer, run a quick keyboard navigation check right then and there.

3. Hold them to meeting this basic tenet of accessibility.

4. Change the world.

Imagine hordes of librarians putting developers and vendors on the spot to provide accessible sites. GLORIOUS!!

But what if they ask how to fix it?

The answers are out there and here!

Web Accessibility Resources

WebAIM:

https://webaim.org/techniques/keyboard/

University of Washington Accessibility Guides:

http://uw.edu/accessibility/checklist/keyboard/

The #NoMouse Challenge:

http://nomouse.org/

W3C ARIA Best Practices:

 https://www.w3.org/TR/wai-aria-practices/#aria_ex

The Technical Details

Arrange HTML in the desired reading order

Use tabindex to control navigation order

Hidden elements (i.e. skip links) should appear when they gain focus

Use the :focus selector to indicate keyboard focus

All interactive elements (tooltips, dropdowns, modals) should respond to focus and key events

Use semantic elements like <a> and <button> and just say *NO to the onclick attribute*.

Be careful when rolling out your own GUI widgets!!

To Summarize

A Simple Accessibility Test for All Users:

1. Try navigating your site with only the keyboard

2. Report and / or fix any problems

3. Accessibility and Usability for the win!

So remember...

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