# MAKING A STRONG CASE FOR ACCESSIBILITY

TODD LIBBY







# **ACCESSIBILITY ENGINEER @ WEBSTAURANTSTORE** W3C INVITED EXPERT

# ACCESSIBILITY ENGINEER @ CENTRE FOR INCLUSIVE DESIGN FORMERLY @ KNOWBILITY OVER 20 YEARS PROFESSIONAL DEV/A11Y EXP.















# • ONE MILLION HOMEPAGES

## HTTPS://WEBAIM.ORG/PROJECTS/MILLION/



# WEBAIM MILLION REPORT • ONE MILLION HOMEPAGES • 50.8+ MILLION ACCESSIBILITY ERRORS

HTTPS://WEBAIM.ORG/PROJECTS/MILLION/



# WEBAIM MILLION REPORT • ONE MILLION HOMEPAGES • 50.8+ MILLION ACCESSIBILITY ERRORS DECREASED 1.1% SINCE FEBRUARY 2021

HTTPS://WEBAIM.ORG/PROJECTS/MILLION/



# WEBAIM MILLION REPORT 887 ELEMENTS TO 955 ELEMENTS PER HOME PAGE



# HOME PAGE

# WEBAIM MILLION REPORT

## • 887 ELEMENTS TO 955 ELEMENTS PER

# INCREASED 7.7% SINCE FEBRUARY 2021



# WEBAIM MILLION REPORT • 887 ELEMENTS TO 955 ELEMENTS PER HOME

 INCREASED 7.7% SINCE FEBRUARY 2021 • 5.3 % OF ALL HOME PAGE ELEMENTS HAD A DETECTED ACCESSIBILITY ERROR

PAGE









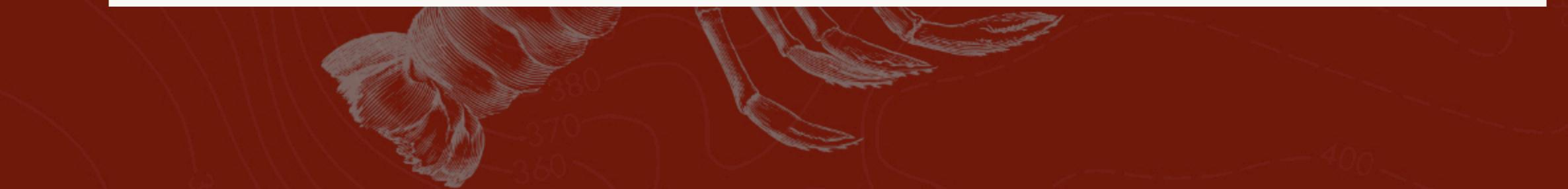
## Mark as read on scroll

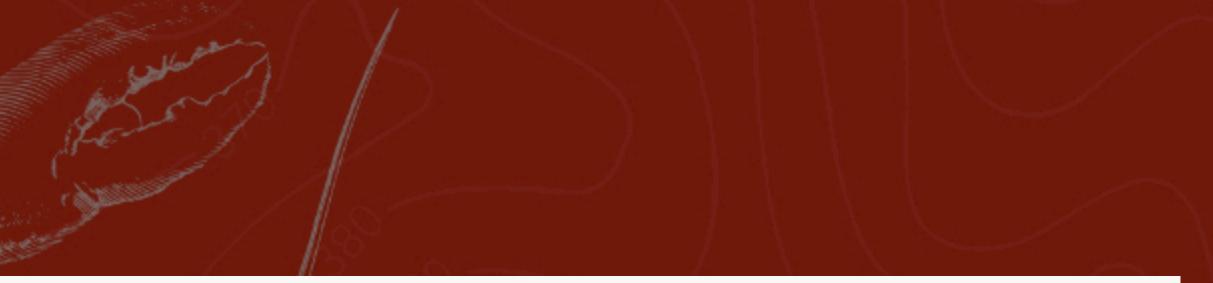
With version 5, Reeder finally supports marking items as read while scrolling. Off by default, this can be enabled on a per-account basis.



## **Reader View**

Enter Reader View (for feed items and read later links that support this) for a clutter-free reading experience directly in Reeder's article viewer. You can enable "Automatic Reader View" on a per-feed basis to always load items of a feed with Reader View.









## Mark as read on scroll



## Reader View

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A 4.16 (?) ion 5, Reeder finally supports marking items as read while scrolling. Off by default, this can be enabled on a per-account basis.

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# WCAG SC 1.4.3 CONTRAST (MINIMUM) THE VISUAL PRESENTATION OF TEXT AND IMAGES OF TEXT HAS A CONTRAST RATIO OF AT LEAST 4.5:1

HTTPS://WWW.W3.ORG/WAI/WCAG21/ UNDERSTANDING/CONTRAST-MINIMUM.HTML



E A









## <img src="/path/to/img/lobster.png"> \overline{

<img src="/path/to/img/lobster.png" alt="">

<img src="/path/to/img/lobster.png" alt="Todd's</pre> lobster roll, hot butter, and blueberry soda."> 🗸





• LOW CONTRAST TEXT MISSING ALTERNATIVE TEXT FOR IMAGES • EMPTY LINKS • MISSING FORM INPUT LABELS • EMPTY BUTTONS • MISSING DOCUMENT LANGUAGE





# EXAMPLES OF PRACTICAL DIGITAL ACCESSIBILITY

"LOW-HANGING FRUIT"

• COLOR CONTRAST THAT EXCEEDS GUIDELINES (>10:1 RATIO) • ACCESSIBLE COLOR SCHEMES • KEYBOARD/SCREEN READER ACCESSIBLE • ACCESSIBLE COMPONENTS (ACCORDIONS, MODALS, ETC.) • PERFORMANT WEB APPS, PWAs, MOBILE APPS, WEB SITES



## MORE EXAMPLES OF PRACTICAL DIGITAL ACCESSIBILITY

## • SCROLLABLE INTERACTIVE CONTENT

- CHARTS, GRAPHS)
- ACCESSIBLE WHEN VIEWING MOBILE PHONE SCREEN SUNLIGHT GLARE
- OTHER SITUATIONAL DISABILITIES BROKEN ARM • CHILD ON LAP

## • ALTERNATIVE TEXT ON IMAGES WHERE NECESSARY (INFOGRAPHICS,









# DISABILITY IS JUST NOT VISUAL (BLIND), AUDITORY (DEAF), OR PHYSICAL (MOTOR SKILL, AMPUTEE, PARALYSIS)!



## LEARNING / COGNITIVE ADHD / ADD FIBROMYALGIA / ARTHRITIS TREMORS / PARKINSON'S MIGRAINE HEADACHES





# "THE CLIENT DOESN'T HAVE THE BUDGET FOR IT."



# "WE'LL GET TO IT AFTER LAUNCH."



## "WHY DO WE NEED TO EVEN MAKE THIS THING ACCESSIBLE?"



# "WHY DO WE NEED TO EVEN MAKE THIS THING ACCESSIBLE?"

# "THERE IS JUST NOT ANY TIME."



# "WHY DO WE NEED TO EVEN MAKE THIS THING ACCESSIBLE?"

# "THERE IS JUST NOT ANY TIME."

# "WE DON'T HAVE DISABLED USERS."



## "WHY DO WE NEED TO EVEN MAKE THIS THING ACCESSIBLE?"

## "THERE IS JUST NOT ANY TIME."

## "WE DON'T HAVE DISABLED USERS."

## "THE PEOPLE THAT USE OUR PRODUCT ARE NOT DISABLED."





### DEVELOPERS WILL FEEL LESS STRESS, LESS PRESSURE, LESS TIME SPENT RE-WORKING THINGS.

PRODUCT AND THEY CANNOT ACCESS IT.

# YOU'RE LESS LIKELY TO BE SUED BY AN INDIVIDUAL OR INDIVIDUALS WHEN THEY COME ACROSS YOUR







### HOW DO I GET BUY-IN FROM STAKEHOLDERS, CLIENTS, COLLEAGUES?

### • SUPPORTS TRICKLES DOWN FROM STAKEHOLDERS TO MANAGERS, TEAMS, AND INDIVIDUALS.

# BUYAN





### HOW DO I GET BUY-IN FROM STAKEHOLDERS, CLIENTS, COLLEAGUES?

- TEAMS, AND INDIVIDUALS.
- **OF ACCESSIBILITY AND CLEAN CODE.**

# BUYEN

### • SUPPORTS TRICKLES DOWN FROM STAKEHOLDERS TO MANAGERS,

# • DO THIS FROM THE START. LOW MAINTENANCE IS NEEDED, BECAUSE





- TEAMS, AND INDIVIDUALS.
- **OF ACCESSIBILITY AND CLEAN CODE.**
- CITE INSTANCES FROM THE LAWSUITS THAT HAVE BEEN WON

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- LIVE TESTING WITH DISABLED USERS RECORDED ON VIDEO.

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### ORGANIZATION ADVOCATES TEAMS OR INDIVIDUALS THAT ADVOCATE IN YOUR ORGANIZATION

 HAVING A PERSON THROUGHOUT EACH DEPARTMENT OR A TEAM FOCUSED ON ACCESSIBILITY AS A LIAISON.



# ORGANIZATION ADVOCATES

TEAMS OR INDIVIDUALS THAT ADVOCATE IN YOUR ORGANIZATION

- FOCUSED ON ACCESSIBILITY AS A LIAISON.
- **ACCESSIBLE PRODUCTS.**

HAVING A PERSON THROUGHOUT EACH DEPARTMENT OR A TEAM

 SOMEONE THAT CAN ANSWER QUESTIONS AND WORK WITH OTHERS TO PRACTICE THE GUIDELINES AND WORK WITH OTHERS TO MAKE



# ORGANIZATION ADVOCATES

TEAMS OR INDIVIDUALS THAT ADVOCATE IN YOUR ORGANIZATION

- FOCUSED ON ACCESSIBILITY AS A LIAISON.
- **ACCESSIBLE PRODUCTS.**
- HELP SET UP DOCUMENTATION AND TOOLING, SERVE AS AN INTERMEDIARY BETWEEN DEPARTMENTS.

HAVING A PERSON THROUGHOUT EACH DEPARTMENT OR A TEAM

 SOMEONE THAT CAN ANSWER QUESTIONS AND WORK WITH OTHERS TO PRACTICE THE GUIDELINES AND WORK WITH OTHERS TO MAKE





### ASSESSMENT **ASSESS THE PRODUCT AND THE PROFICIENCY WITHIN THE ORGANIZATION**

### • GAUGING WHERE THE PRODUCT(S) ARE AS FAR AS HOW INCLUSIVE AND ACCESSIBLE THEY ARE IS A KEY PRIORITY.





AND ACCESSIBLE THEY ARE IS A KEY PRIORITY. **APPLICATION?** 

# ASSESSMENT

**ASSESS THE PRODUCT AND THE PROFICIENCY WITHIN THE ORGANIZATION** 

• GAUGING WHERE THE PRODUCT(S) ARE AS FAR AS HOW INCLUSIVE • WHAT IS THE CURRENT STATE OF THE PRODUCT, WEBSITE, OR MOBILE





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- **APPLICATION?**
- TEAMS AND PEOPLE IN THE COMPANY CURRENTLY HAVE.

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## • GETTING THE GENERAL IDEA OF THE LEVEL OF KNOWLEDGE THAT





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### • OF ALL ACCESSIBILITY TRAINING DONE • TO MEET REQUIREMENTS THAT APPLY TO THE ORGANIZATION

MAINTAINING A WRITTEN RECORD



• OF ALL ACCESSIBILITY TRAINING DONE TO MEET REQUIREMENTS THAT APPLY TO THE ORGANIZATION GREAT WAY TO KEEP DATA ON ALL TRAINING DONE IN ORGANIZATION

MAINTAINING A WRITTEN RECORD



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- - ORGANIZATION

• RECORD THE TRAINING AND WHO TRAINED AND WHEN IT WAS COMPLETED

MAINTAINING A WRITTEN RECORD



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- - ORGANIZATION
- COMPLETED
- DO TRAINING.

MAINTAINING A WRITTEN RECORD

• RECORD THE TRAINING AND WHO TRAINED AND WHEN IT WAS

• IF THERE IS NO INTER-ORGANIZATIONAL TRAINING USE ORGS THAT



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- COMPLETED
- TRAINING.
  - DEQUE
  - TPGI
  - WEBAIM

MAINTAINING A WRITTEN RECORD

• IF THERE IS NO INTER-ORGANIZATIONAL TRAINING USE ORGS THAT DO



### GUIDELINES **CONSISTENT IMPLEMENTATION**

### • DESIGN SYSTEMS ENSURE ACCESSIBILITY AND INCLUSIVITY AND THE UNDERSTANDING OF CODE BETTER



# GUIDELINES

**UNDERSTANDING OF CODE BETTER** • ACCESSIBLE COMPONENTS REDUCE TIME TO IMPLEMENT

**CONSISTENT IMPLEMENTATION** 

• DESIGN SYSTEMS ENSURE ACCESSIBILITY AND INCLUSIVITY AND THE



# GUIDEINES

- DESIGN SYSTEMS ENSURE ACCESSIBILITY AND INCLUSIVITY AND THE **UNDERSTANDING OF CODE BETTER** ACCESSIBLE COMPONENTS REDUCE TIME TO IMPLEMENT
- TESTING PROCEDURES IMPLEMENTED SO PEOPLE CAN DO JOBS WELL **AND EFFICIENTLY**

**CONSISTENT IMPLEMENTATION** 



# GUDEINES

- DESIGN SYSTEMS ENSURE ACCESSIBILITY AND INCLUSIVITY AND THE UNDERSTANDING OF CODE BETTER
- ACCESSIBLE COMPONENTS REDUCE TIME TO IMPLEMENT
- TESTING PROCEDURES IMPLEMENTED SO PEOPLE CAN DO JOBS WELL **AND EFFICIENTLY**
- DOCUMENT GUIDELINES IN A COLLABORATIVE MANNER USING TOOLS

**CONSISTENT IMPLEMENTATION** 



### • AMERICAN DISABILITIES ACT (ADA) - UNITED STATES • SECTION 508 (U.S. GOVERNMENT)



• AMERICAN DISABILITIES ACT (ADA) - UNITED STATES • SECTION 508 (U.S. GOVERNMENT) • ACCESSIBLE CANADA ACT (ACA) - CANADA



• AMERICAN DISABILITIES ACT (ADA) - UNITED STATES • SECTION 508 (U.S. GOVERNMENT) • ACCESSIBLE CANADA ACT (ACA) - CANADA • EN 301 549 - EUROPEAN UNION



- AMERICAN DISABILITIES ACT (ADA) UNITED STATES
- SECTION 508 (U.S. GOVERNMENT)
- ACCESSIBLE CANADA ACT (ACA) CANADA
- EN 301 549 EUROPEAN UNION
- WEB CONTENT ACCESSIBILITY GUIDELINES (WCAG) -INTERNATIONALLY



# STANDARDS **GUIDELINES FROM DIFFERENT COUNTRIES** • AMERICAN DISABILITIES ACT (ADA) - UNITED STATES

- SECTION 508 (U.S. GOVERNMENT)
- ACCESSIBLE CANADA ACT (ACA) CANADA
- EN 301 549 EUROPEAN UNION
- WEB CONTENT ACCESSIBILITY GUIDELINES (WCAG) -INTERNATIONALLY
- ARTICLE 9
- ARTICLE 21

CONVENTION ON THE RIGHTS OF PERSONS WITH DISABILITIES (CPRD)



### TEST & RECORD CASES WHERE DISABLED USERS ARE USING THE PRODUCT



- PRODUCT
- PRESENT TO COLLEAGUES/STAKEHOLDERS

### • TEST & RECORD CASES WHERE DISABLED USERS ARE USING THE



- PRODUCT
- PRESENT TO COLLEAGUES/STAKEHOLDERS
- OUTSOURCE TESTING WITH COMPANIES:
  - APPLAUSE
  - FABLE

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- PRODUCT
- PRESENT TO COLLEAGUES/STAKEHOLDERS
- OUTSOURCE TESTING WITH COMPANIES:
  - APPLAUSE
  - FABLE
- HIRE DISABLED PEOPLE!

- TEACHING AND ADVOCATING

### • TEST & RECORD CASES WHERE DISABLED USERS ARE USING THE



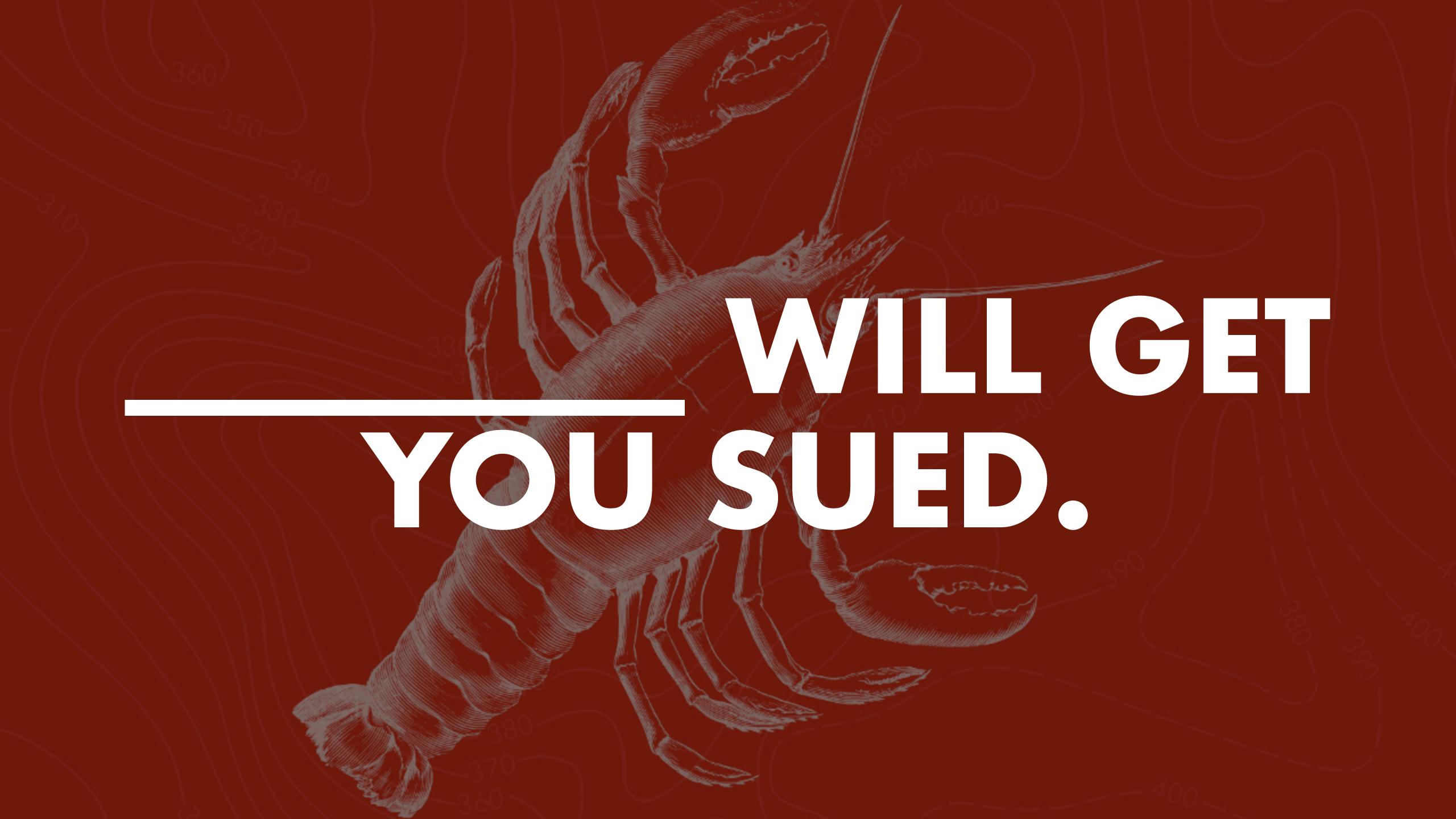






# USERMAN MANY, MANY MORE!







<script>(function(){ var s = document.createElement('script'), e = !
document.body ? document.querySelector('head') : document.body; s.src =
'https://acsbapp.com/apps/app/dist/js/app.js'; s.async = true; s.onload =
function(){ acsbJS.init({ statementLink : '', footerHtml : '', hideMobile :
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'small', triggerOffsetX : 3, triggerOffsetY : 3, mobile : { triggerSize :
'small', triggerPositionX : 'left', triggerRadius : '50%' } }); };
e.appendChild(s);}());</script>







## AUTOMATED TESTING WHEREVER POSSIBLE WITH NEW RELEASES OR CHANGES



- CHANGES
- SCREEN READER ANALYSIS BEFORE EVERY RELEASE

## AUTOMATED TESTING WHEREVER POSSIBLE WITH NEW RELEASES OR



- CHANGES
- SCREEN READER ANALYSIS BEFORE EVERY RELEASE
- ANNUAL AUDITS

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- USER TESTING

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- ACCESSIBILITY IS NEVER DONE! KEEP MOVING FORWARD!

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- CHANGES
- SCREEN READER ANALYSIS BEFORE EVERY RELEASE
- ANNUAL AUDITS
- USER TESTING
- ACCESSIBILITY IS NEVER DONE! KEEP MOVING FORWARD!
- LIKE THE WEB, ACCESSIBILITY IS ALWAYS EVOLVING

## AUTOMATED TESTING WHEREVER POSSIBLE WITH NEW RELEASES OR







"...OUR INDUSTRY AS A WHOLE THINKS LESS AND LESS ABOUT ACCESSIBILITY (NOT THAT WE EVER HAD AN A GAME ON THE SUBJECT), AND TALKS LESS AND LESS ABOUT PROGRESSIVE ENHANCEMENT, PREFERRING TO CHASE THE EPHEMERAL GOAL POSTS OF OVER-ENGINEERED SOLUTIONS TO NON-PROBLEMS."

JEFFREY ZELDMAN - HTTPS://WWW.ZELDMAN.COM/2019/12/01/BLUEBEANIEDAY2019/





Today, my dad cried over the phone, hhis computer without my help.

He's blind.

Each inaccessible webpage tells him, "you aren't welcome in this world."

If you don't know whether your website or app is accessible: it's not.

Start learning.

12:46 AM · Jun 10, 2020 · Twitter Web App

11.7K Retweets 570 Quote Tweets 43.4K Likes

### Today, my dad cried over the phone, he wanted one week where he could use

# DESIGN AND DEVELOP FOR PEOPLE NOT LIKE YOURSELF AND KEEP THAT IN MIND WHEN THROWING WORDS LIKE "INCLUSIVE" AND "ACCESSIBLE" AROUND.







# ATTY IS A RIGHT.



## SLIDES: HTTPS://NOTI.ST/COLABOTTLES/SJME5E/ MAKING-A-STRONG-CASE-FOR-ACCESSIBILITY

## LINKS: HTTPS://TODDL.DEV/SLIDES/







