

The Web Should Just Work for Everyone

Aaron Gustafson
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Microsoft Edge Web Summit
4 April 2016
San Francisco, CA USA

Accessibility

Opportunity

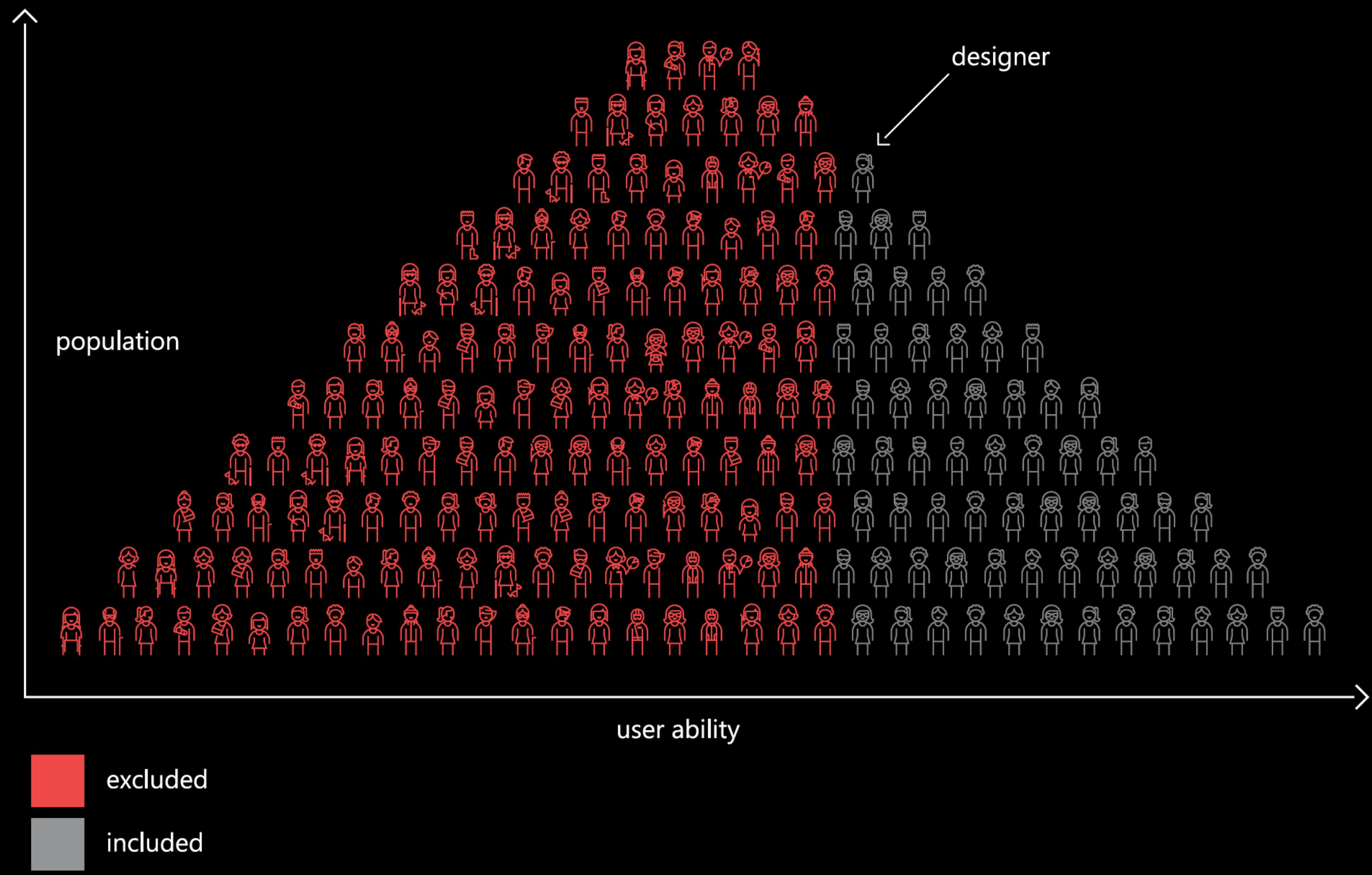
WHO (c. 1980)

“In the context of health experience, a disability is any restriction or lack of ability (resulting from an impairment) to perform an activity in the manner or within the range considered normal for a human being.”

WHO (c. TODAY)

“Disability is not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person’s body and features of the society in which he or she lives.”

Disabilities
are Designed



John Rawls
1921-2002



John Rawls
1921-2002



“special needs”
(we've all got 'em)



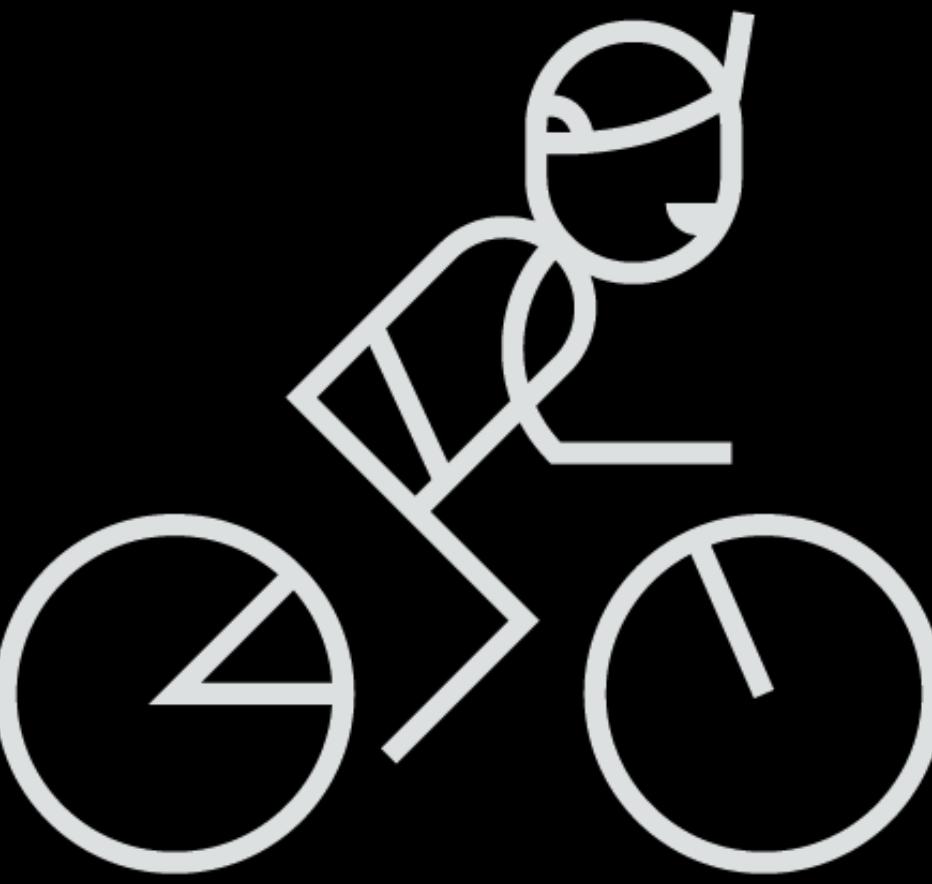
Photo Credit: Dylan Passmore



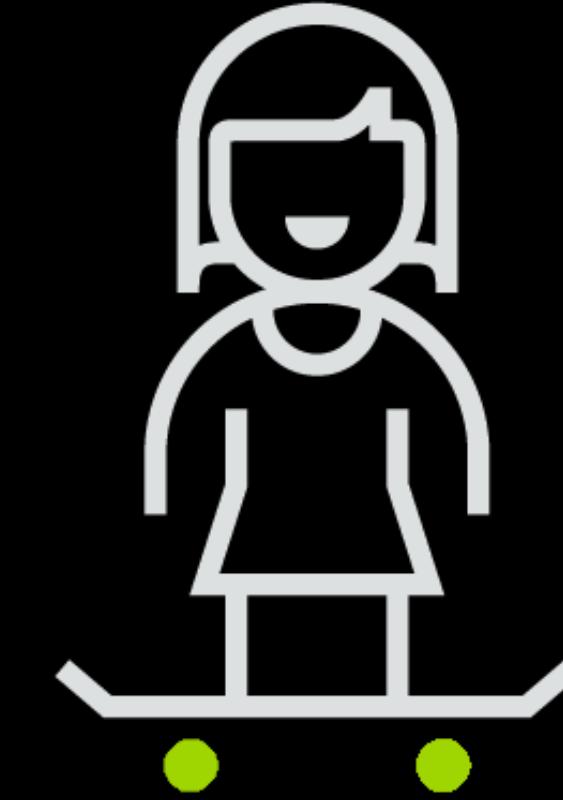
wheelchairs



strollers

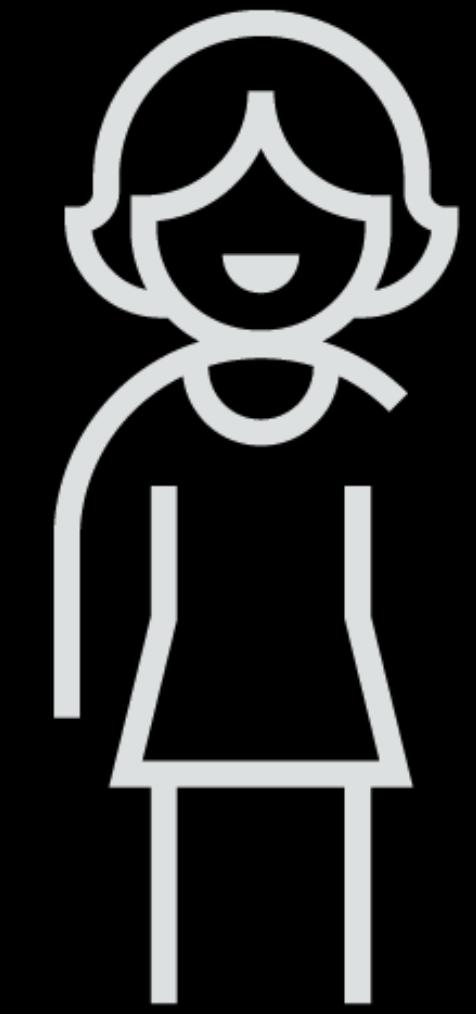


bicycles



skateboards





one arm



arm injury

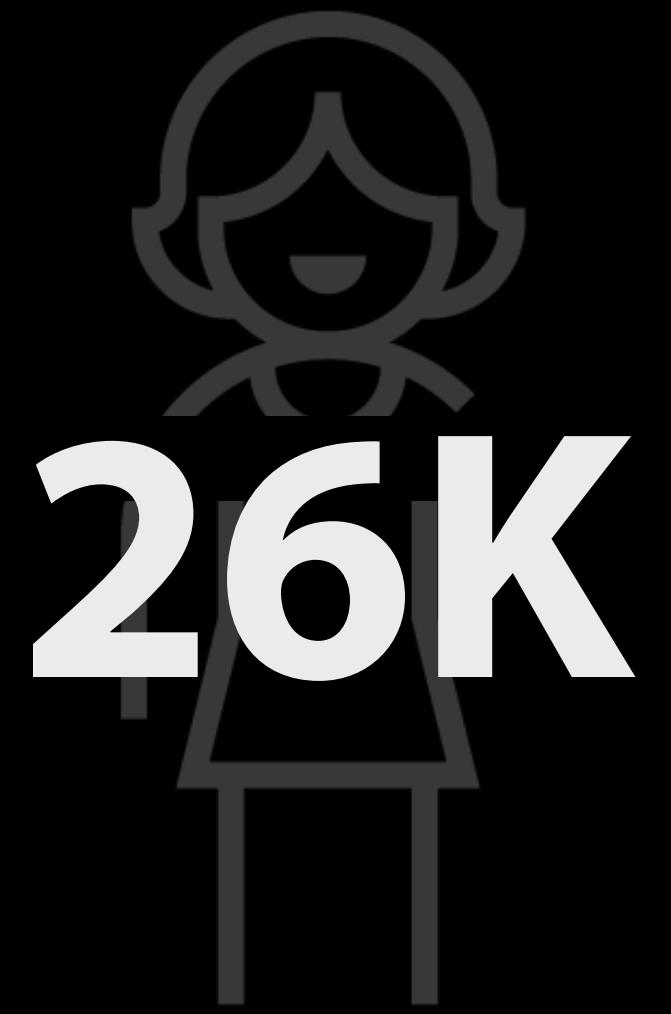


new parent

permanent



situational



one arm



arm injury

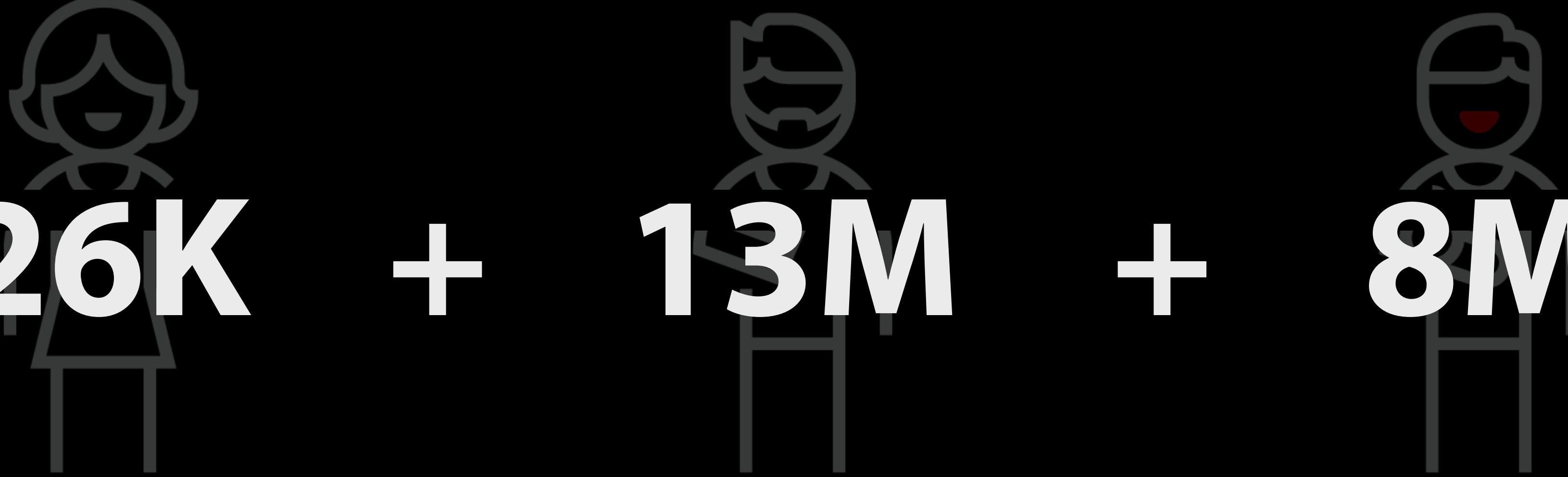


new parent

permanent



situational



26K + **13M** + **8M**

one arm

arm injury

new parent

permanent → situational

21 Million People

Progressive Enhancement

BEN HOH

“[Progressive enhancement] keeps the design open to **the possibilities of sexiness** in opportune contexts, rather than starting with the ‘whole’ experience that must be compromised.”

This is What
Design is All About

JEFFREY VEEN

“I’ve been amazed at how often those outside the discipline of design assume that what designers do is decoration—likely because so much bad design simply is decoration. Good design isn’t. **Good design is problem solving.**”





Photo Credit: Tom
Magliery



2015

24 ways is the advent calendar for web geeks. For twenty-four days each December we publish a daily dose of web design and development goodness to bring you all a little Christmas cheer. [Learn more](#)

24 Solve the Hard Problems

Drew McLellan brings our 2015 calendar to a motivational close with some encouragement for the year ahead. Year's end is a time for reflection *and* finding new purpose and enthusiasm for what we do. By tackling the thorniest design and development problems, we can make the greatest impact – and have the most fun. Merry Christmas and a happy New Year!

11 comments

23 Blow Your Own Trumpet

Andy Clarke encourages us to have confidence in the way we communicate with potential clients. Being open and genuine, and providing an insight into what working with you will be like can help prospective clients choose you over your competitors. So before you refresh your glass, refresh your website's copy!

No comments

22 How Tabs Should Work

Remy Sharp picks that old chestnut – tabs – and roasts it afresh on the open fire of JavaScript to see how a fully navigable, accessible and clickable set of tabs can work. Everybody knows some scripting and some CSS can help to make your website bright. Although it's been said many times, many ways, please be careful to do it right.

16 comments

21 What's Ahead for Your Data in 2016?

Heather Burns outlines the most important international legal issues whose effects will ripple through our work on the web in 2016 and beyond. Like the Ghost of Christmas Yet To Come, these trade agreements have approached slowly, gravely, silently. Perhaps now's the time to take action.

No comments

Archives

Topics

Authors

About



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No comments

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Topics

Authors

About

Accessible
Rich
Internet
Application

ARIA Landmarks

```
<header class="banner" role="banner" id="top">
  <h1 class="banner_logo"><a href="/" rel="home">
    24 ways <span>to impress your friends</span></a></h1>
</header>
```

```
<main role="main">  
  ...  
</main>
```

```
<nav class="navigation" role="navigation" id="menu">
  <h1 class="hidden">Browse 24 ways</h1>
  <ul class="nav nav-topics">
    <li class="nav_item"><a href="/topics/business/">Business</a></li>
    ...
  </ul>
  ...
</nav>
```

```
<footer class="contentinfo" role="contentinfo">
  <p class="contentinfo_copyright">
    <small>© 2005-2016 24 ways and our authors.
    <a href="/about/#colophon">Colophon</a></small>
  </p>
  <p class="contentinfo_social">
    <a href="http://feeds.feedburner.com/24ways"
       rel="alternate">Grab our RSS feed</a>
    <a href="https://twitter.com/24ways" rel="me">Follow us
       on Twitter</a>
    <a href="/newsletter">Subscribe to our newsletter</a>
  </p>
</footer>
```


Every Interface
is a Conversation

West of House

You are standing in an open field west of a white house, with a boarded front door.

There is a small mailbox here.

> open mailbox

This is a small room with passages to the east and south and a forbidding hole leading west. Bloodstains and deep scratches (perhaps made by an axe) mar the walls.

A nasty-looking troll, brandishing a bloody axe, blocks all passages out of the room.

Your sword has begun to glow very brightly.

> kill troll

This is a small room with passages to the east and south and a forbidding hole leading west. Bloodstains and deep scratches (perhaps made by an axe) mar the walls.

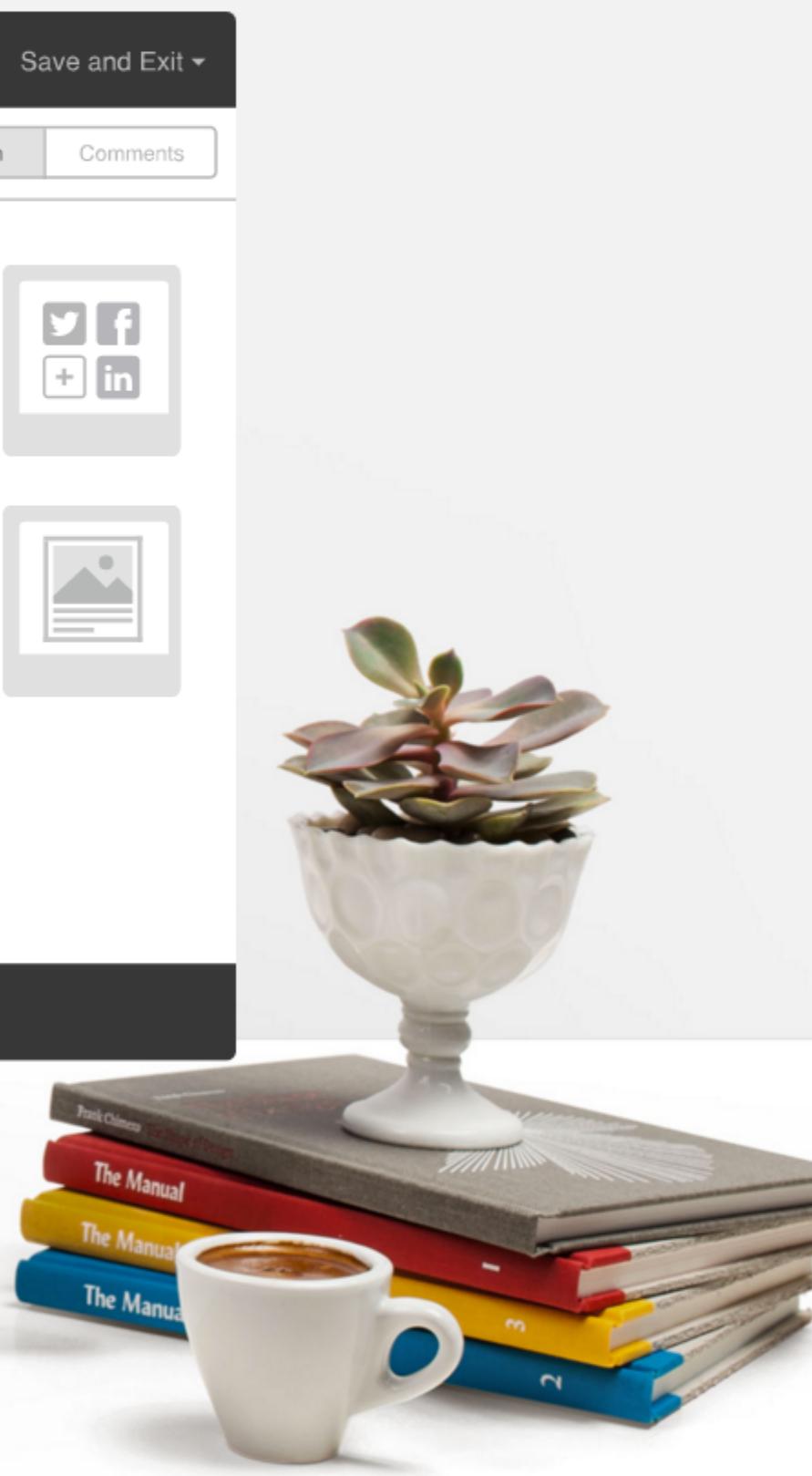
A nasty-looking troll, brandishing a bloody axe, blocks all passages out of the room.

Your sword has begun to glow very brightly.

> hit the troll with the Elvish sword

[Features](#)[Pricing](#)[Support](#)[Blog](#)[More](#)[Sign Up Free](#)[Log In](#)

Send Better Email



A screenshot of the MailChimp email editor interface. The window title is "J+S Stoneware 1 Editing". The top menu includes "Help", "Preview and Test", and "Save and Exit". Below the menu, there are three tabs: "Content", "Design" (which is selected), and "Comments". On the left, there's a sidebar with icons for social media sharing (Twitter, Facebook, LinkedIn) and images. The main content area features a photograph of a woman holding a blue mug. Below the photo, the text "Can't Choose? Let Them!" is displayed. At the bottom of the editor window, a navigation bar shows the steps: Recipients > Setup > Template > Design > Confirm.

Join more than 10 million people who use MailChimp
to design and send 600 million emails every day.

[Sign Up Free](#)

MailChimp Pro: Advanced email marketing for \$199 / month >



Introducing **AUDIENCE** for the Brightcove Video Marketing Suite



- CAPTURE LEADS WITH FORMS
- TRACK INDIVIDUAL ENGAGEMENT
- SEGMENT AND SCORE LEADS
- INTEGRATE WITH MARKETING AUTOMATION PLATFORMS

ORACLE | **eloqua** 

Get a response today

We love hearing about exciting new ideas. Your message will be confidentially sent to the Littlelines Founder, Matt. It'll be placed to the top of the stack and he'll respond to you today. If you'd prefer to speak to someone right away, call us at **1-877-533-8101**

*We currently have **one** spot open for new client projects*

[QUICK MESSAGE](#)

or

[KICK START PROJECT](#)

Your Name *

Your Email *



What's happening?

AFC
✓



Media



Location



Poll

140

Buffer



Tweet



How does this photo make you feel?

How does this photo make you feel?

○ Embarrassing

How does this photo make you feel?

- Embarrassing
- Upsetting

How does this photo make you feel?

- Embarrassing
- Upsetting
- Saddening

How does this photo make you feel?

- Embarrassing
- Upsetting
- Saddening
- Bad Photo

How does this photo make you feel?

- Embarrassing
- Upsetting
- Saddening
- Bad Photo
- Other

How does this photo make you feel?

- Embarrassing
- Upsetting
- Saddening
- Bad Photo
- Other

How does this photo make you feel?

- Embarrassing
- Upsetting
- Saddening
- Bad Photo
- Other

How does this photo make you feel?

- Embarrassing
- Upsetting
- Saddening
- Bad Photo
- Other it's embarrassing

Please describe the photo

- It's embarrassing
- It's a bad photo of me
- It makes me sad

Talk to your users
like they talk
to one another.

Write for People

- Be clear.
- Be concise.
- Be honest.
- Be considerate.
- Write how you speak.

- Be clear.
- Be concise.
- Be honest.
- Be considerate.
- Write how you speak.

Avoid Technical
and Legal Jargon



The operation can't be completed.

An unexpected error occurred (error code -8058).

OK

Medium Terms of Service

Effective: March 7, 2016

These Terms of Service (“Terms”) are a contract between you and A Medium Corporation. They govern your use of Medium’s sites, services, mobile apps, products, and content (“Services”).

By using Medium, you agree to these Terms. If you don’t agree to any of the Terms, you can’t use Medium.

We can change these Terms at any time. We keep a [historical](#) record of all changes to our Terms on GitHub. If a change is material, we’ll let you know before they take effect. By using Medium on or after that effective date, you agree to the new Terms. If you don’t agree to them, you should delete your account before they take effect, otherwise your use of the site and content will be subject to the new Terms.

Content rights & responsibilities

You own the rights to the content you create and post on Medium.

When Requesting
Feedback, Make
It Clear That the User
Needs to Respond

```
<label for="first_name">What's your first name?</label>
<input name="first_name" id="first_name">
```

```
<label for="first_name">What's your first name?</label>
<input name="first_name" id="first_name">
```

```
<label for="first_name">What's your first name?</label>
<input name="first_name" id="first_name"
       aria-describedby="first_name-error">
<em id="first_name-error">
  Without your first name, I won't know how to address you.
  Could you please provide it?
</em>
```

```
<label for="first_name">What's your first name?</label>
<input name="first_name" id="first_name"
       aria-describedby="first_name-error">
<em id="first_name-error">
  Without your first name, I won't know how to address you.
  Could you please provide it?
</em>
```

When Asking a
User to Choose,
Clearly Present
the Options

```
<input type="radio" name="agree" id="agree_yes" value="yes">
<label for="agree_yes">Yes</label>
```

```
<input type="radio" name="agree" id="agree_yes" value="yes">
<label for="agree_yes">Yes</label>
```

```
<fieldset>
  <legend tabindex="0">Do you agree to the terms of service
    for this site?</legend>
  <input type="radio" name="agree" id="agree_yes" value="yes">
    <label for="agree_yes">Yes</label>
  <input type="radio" name="agree" id="agree_no" value="no">
    <label for="agree_no">No</label>
</fieldset>
```

```
<fieldset>
  <legend tabindex="0">Do you agree to the terms of service
    for this site?</legend>
  <input type="radio" name="agree" id="agree_yes" value="yes">
    <label for="agree_yes">Yes</label>
  <input type="radio" name="agree" id="agree_no" value="no">
    <label for="agree_no">No</label>
</fieldset>
```



```
<nav id="nav" tabindex="0" aria-labelledby="nav-title">
  <h1 id="nav-title" class="hidden">Here's what you can
    find on this site:</h1>
  <ul>
    <li><a href="/about/"><b class="hidden">A Bit
      </b>About<b class="hidden"> Me</b></a></li>
    <li><a href="/notebook/"><b class="hidden">Entries in My
      </b>Notebook</a></li>
    ...
  </ul>
</nav>
```

```
<nav id="nav" tabindex="0" aria-labelledby="nav-title">
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  <ul>
    <li><a href="/about/"><b class="hidden">A Bit
      </b>About<b class="hidden"> Me</b></a></li>
    <li><a href="/notebook/"><b class="hidden">Entries in My
      </b>Notebook</a></li>
    ...
  </ul>
</nav>
```

THE TWO-WAY - NEWS BLOG

Zika Linked To Microcephaly, Health Agencies Say

Scientists have been working for months to establish the connection between the virus and the brain damage they have seen in babies. More research is needed to establish how much danger a fetus is in if a pregnant woman becomes infected.



Felipe Dana/AP

THE SALT

Your Quinoa Habit Really Did Help Peru's Poor. But There's Trouble Ahead

Headlines once warned the global quinoa boom was putting the nutritious crop out of the reach of those who grow it. New studies put those fears to rest. But bad news may loom for Andean farmers.



WHAT WOULD MAKE AN HONEST MAN LIE TO HIS DAUGHTER EVERY NIGHT?

R · POLICIA NO PASAR · PO
CIA NO PASAR · POLICIA NO

Find out on NPR's new podcast
hosted by Kelly McEvers

npr

EMBEDDED

PREMIERES MARCH 31

LISTEN TO THE TRAILER

```
<nav class="global-navigation" role="navigation"  
aria-label="main navigation">  
...  
</nav>
```

```
<nav class="global-navigation" role="navigation"  
aria-label="main navigation">  
...  
</nav>
```

Prompts Should
be Short, While
Still Being Clear

ALBERT EINSTEIN

It can scarcely be denied that the supreme goal of all theory is to make the irreducible basic elements as simple and as few as possible without having to surrender the adequate representation of a single datum of experience.

ALBERT EINSTEIN
(VIA ROBERT SESSIONS)

Everything should be
as simple as it can be
but not simpler.

THIS IS REAL COPY

Heavy rains throughout most of the State have given an optimistic outlook for lessened fire danger for the rest of the season. However, an abundance of lightning maintains a certain amount of hazard in isolated areas that have not received an excessive amount of rain.

IT COULD BE SO MUCH BETTER

Heavy rains throughout most of the State have lessened fire danger for the rest of the season. However, lightning threatens isolated dry areas.

If you are a registered social landlord or a private registered provider of social housing claiming possession of premises let under a demoted assured shorthold tenancy, you should complete **only** sections 1 and 5 to 9.

1. The claimant seeks an order that the defendant(s) give possession of:

(If the premises of which you seek possession are part of a building identify the part eg. Flat 3, Rooms 6 and 7)

Postcode

('the premises') which is a dwelling house part of a dwellinghouse

Is it a demoted tenancy? Yes No

If Yes, complete the following:

On the DD / MM / YY , the County Court

made a demotion order. A copy of the most recent (assured) (secure) tenancy agreement marked 'A' and a copy of the demotion order marked 'B' is attached to this claim form. The defendant was previously (an assured) (a secure) tenant.

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Property

What kind of property do you want to take back?

A self-contained house, flat or bedsit

Room or rooms in a property.
Tenants may share kitchen or bathroom

Postcode

Find address

► [Enter address manually](#)

Property

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A self-contained house, flat or bedsit

Room or rooms in a property.
Tenants may share kitchen or bathroom

Postcode

Find address

► [Enter address manually](#)

Ask Only
Necessary
Questions

1 Select parking 2 Your details 3 Select options..... 

Contact

Title:

First Name:

Last Name:

Phone Number:

Email:

Address

Address 1:

Address 2:

Address 3:

City:

Postcode

Flight

Return Flight Number:

Destination:

Passengers:

Vehicle 1

Vehicle Type:

Standard 

Please note that parking and additional services are charged at a higher rate for 4X4's and Van's

Number Plate:

Make:

Model:

Colour:

[Add another vehicle](#)

Your booking so far

Airport

Edinburgh

Car Park

Flying Scot (Edinburgh)

Departing

6 Jul 2011 00:00

Returning

7 Jul 2011 00:00

Days

2

Parking Cost

£14.99

YOUR TOTAL

£14.99

[Back](#) [Continue](#)

Book your Airport Parking online

- 1 Select parking
- 2 Your details.....
- 3 Select options.....

Your Details

First Name:

Last Name:

Email:

Phone Number:

Vehicle 1 Details

Select Your Vehicle Type: Car Van 4x4

Vehicle Number Plate:

Add another vehicle



Your booking so far

Airport

Edinburgh

Car Park

Flying Scot (Edinburgh)

Departing

6 Jul 2011 00:00

Returning

7 Jul 2011 00:00

Days

2

Parking Cost

£14.99

YOUR TOTAL

£14.99

Back

Continue

Phone Number:

Phone Number:

Present
Information
in Consumable
Pieces

The top seller in the garden department is Repel Lemon Eucalyptus Natural Insect Repellent, 4-Ounce Pump Spray

Would you like to hear the rest?

Demystifying Accessibility



HTML5 Accessibility

Get the current accessibility support status of HTML features across major browsers.

Browser Result

Overview

Feature Support

How to Test

Notes & Further Resource





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Overview

Feature Support

How to Test

Notes & Further Resources



Teach Access

Technology companies dedicated to accessibility have faced the common challenge of preparing designers, engineers and researchers to think and build inclusively. Similarly, academic programs in design, engineering and HCI are seeking ways to better prepare students to address the needs of diverse populations. Given this shared challenge, industry, academia and advocacy have now come together to create models for teaching and training students of technology to create accessible experiences.

Job Descriptions

The companies that are supporting Teach Access are focused on the continual improvement of the accessibility of their products and services. They have recognized that the success of this effort relies on a technical workforce broadly familiar with and trained on the fundamentals of designing, developing, testing and

Online Learning Portal

The Teach Access initiative is working on a set of best practices for the disciplines responsible for making accessible mobile apps and websites. This portal will provide basic training for developers and designers, with more disciplines to come. If you are new to accessibility, you've come to the right place - this



http://is.gd/msft_inclusive_design

Better veggies. Better living. 

[Like](#) [Follow](#) RECIPES MENUS QUICK & EASY COOKII



fast 'n healthy
Classic Margherita Pizza with Basil and Fresh Mozzarella
Time to Prepare 25 min.

EXTENSIONS

-  Reddit Enhancement Suite On: Debug
-  Microsoft Translator On: Debug

[Get extensions](#) [Load extension](#)

MARCH 17, 2016 / PC, Tablet

Microsoft Edge extensions now available to preview

By Microsoft Edge Team

[READ MORE](#)

SHOW: ALL PC MOBILE

 [SUBSCRIBE](#)

MARCH 16, 2016 / Mobile, PC, Tablet

RC4 will no longer be supported in Microsoft Edge and

POPULAR ARTICLES

Windows 10 virtual machines now available on Microsoft Edge Dev

[Read more](#)

Accessibility is not
About Disabilities
It's About People

THIS IS FOR ALL
THIS IS FOR EVERYONE



THIS IS FOR ALL

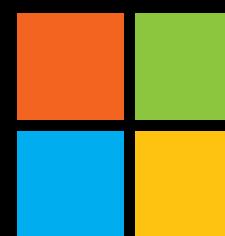
THIS IS FOR ALL

Thank you!

@AaronGustafson

aaron-gustafson.com

slideshare.net/AaronGustafson



Microsoft