Inclusive Design

The Big Picture

Knowbility

#AccessU2021

Eric Eggert

Knowbility's Director of Accessibility Services

Based in Essen, Germany

- German BIENE Award in 2010

- Outline Consulting (since 2011)

- W3C/WAI (2013–2020)

- Knowbility (since 2016)

Content Warning

This presentation covers:

- Racial Inequality

- Gender Discrimination

- Ageism

- Ableism

What is Inclusive Design?

Jutta Treviranus

Jutta Treviranus is the Director of the Inclusive Design Research Centre (IDRC) and professor in the faculty of Design at OCAD University[1] in Toronto.

Jutta also heads the Inclusive Design Institute, a multi-university regional centre of expertise.

Bio at OCAD University

[1] Ontario College of Art & Design University

Susan M. Goltsman (1949–2016)

Susan Goltsman, FASLA[2], was an internationally recognized expert in programming and designing inclusive environments for children and families. She created and advocated tirelessly for environments that promote social equity and contribute to healthy human development.

Obituary at PLAE

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[2] Fellow of the American Society of Landscape Architects

Inclusive Design, a Definition

- Digital technology can *improve* societal inclusion

- A methodology that enables and draws on the *full range of human diversity*.

- Including and learning from people with a *range of perspectives.*

- Inclusive design *doesn't mean* you're designing *one thing for all people.*

- You're designing a *diversity of ways to participate* so that everyone has a sense of belonging.

And just to make this clear:

This is "**store-brand inclusive design**",
not "name-brand inclusive design".

Why do I care?

Somewhere in the Forest, Germany

As a kid, I already found that to be **unfair**.

I had Asthma until I was 12.

And while that excluded participation in many activities, it allowed me to go to a "regular" school.

This was not a matter of course at the time.

Allergen immunotherapy helped me eventually.

Why did we get treated differently?

- My condition did only require minor adjustments.

- I did not need an accessible building (but it would have helped).

- My parents are German, his are Greek.

The world[3] was not designed for my friend's needs.

- Inaccessible.

- No information available in Greek.

- Segregated Education.

[3] Well, in particular Germany in the 80's & 90's.

So, Inclusive Design.

Related Concepts

Inclusive Design
Universal Design
Accessibility

Universal Design

Design an environment so that it might be accessed and used in the widest possible range of situations without the need for adaptation.

"One size – fits all."

Universal Design

- Based on built environments & architecture.

- Describes the qualities of the final design.

- Great for *physical* objects.

Source: Mike on Flickr, left image, right image

Accessibility

Requirements that are technical and relate to the underlying code rather than to the visual appearance and requirements that relate to user interaction and visual design.

— Accessibility, Usability, and Inclusion (W3C/WAI)

Accessibility

- An *attribute* instead of a method.

- Focuses on accessibility standards.

- A foundation for building inclusive solutions.

Inclusive Design can focus on accessibility and have a universal design as an outcome.

Does the **Average Person** Exist?

AERO MEDICAL LABORATORY
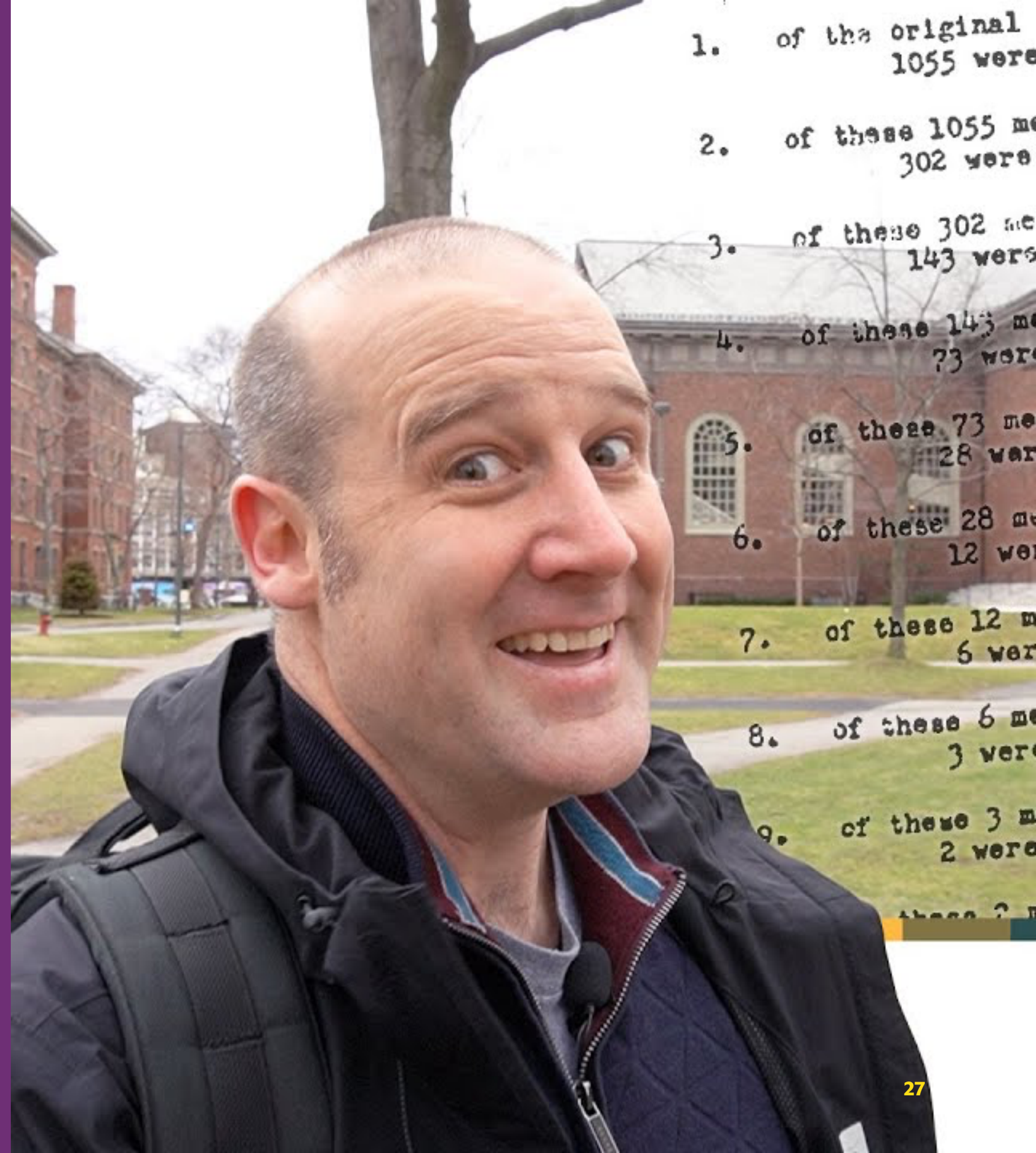
AND

E. CHURCHILL

ANTIOCH COLLEGE

SEPTEMBER 1954

Statement A
Approved for Public Release

WRIGHT AIR DEVELOPMENT CENTER

Thanks Matt!

- On YouTube: Does The Average Person Exist?

- Twitter: @standupmaths

No User is the Same

One size – fits one.

Inclusive design doesn't mean you're designing one thing for all people.

— Susan Goltsman

You're designing a diversity of ways to participate so that everyone has a sense of belonging.

— Susan Goltsman

Beware of your own biases!

It's easy to generalize from one's own experiences.

And invalidate other's experiences

Aspects of Human Diversity

1. Language

2. Culture

3. Gender

4. Race

5. Age

6. Ability & Disability

7. Other forms of human difference

Aspects of Human Diversity

Language

国际化活动、万维网联盟

English: You are speaking to her from my new house.

Finnish: Olet uudessa talossani ja puhut hänelle.

English: You are speaking to her from my new house.

Hindi: तुम उससे मेरे नए घर से बात कर रहे हो.
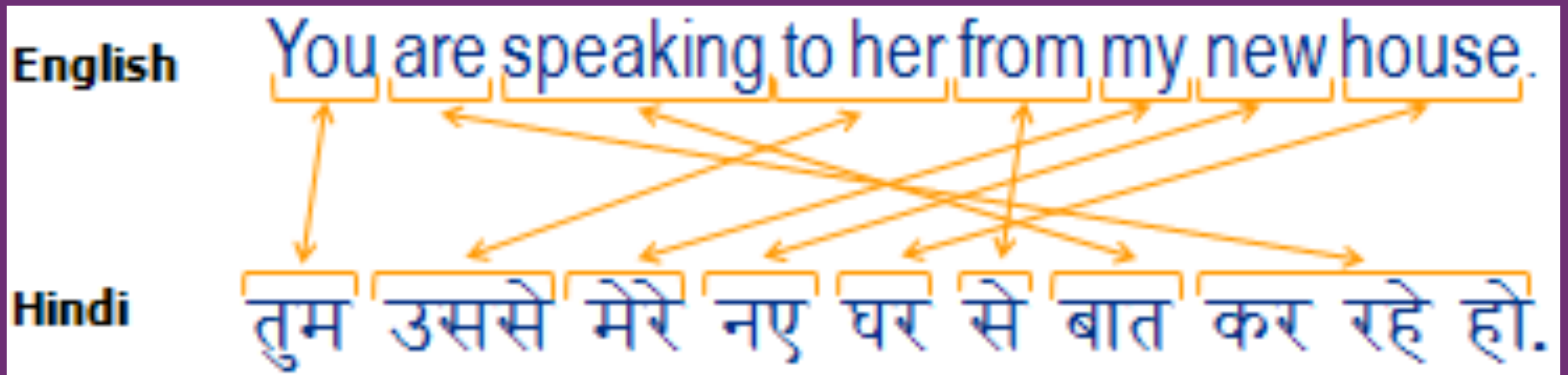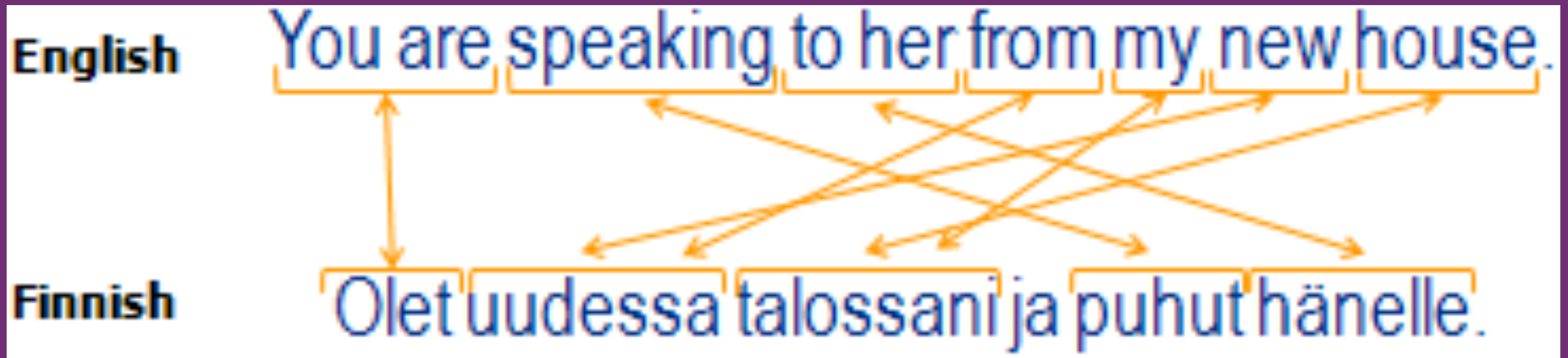
Language

Awareness for speakers of other languages helps to shape content.

- Do we need text for this?

- Can we support our content with illustrations, animations or videos?

- Can this be written simpler or more descriptive?

- Is there an appropriate symbol?

Aspects of Human Diversity

Culture

Lucas Brown Eyes
@LucasBrownEyes

Erasure is complete when they say your name and you're no longer remembered.

Cultural insensitivity is actively hurtful.
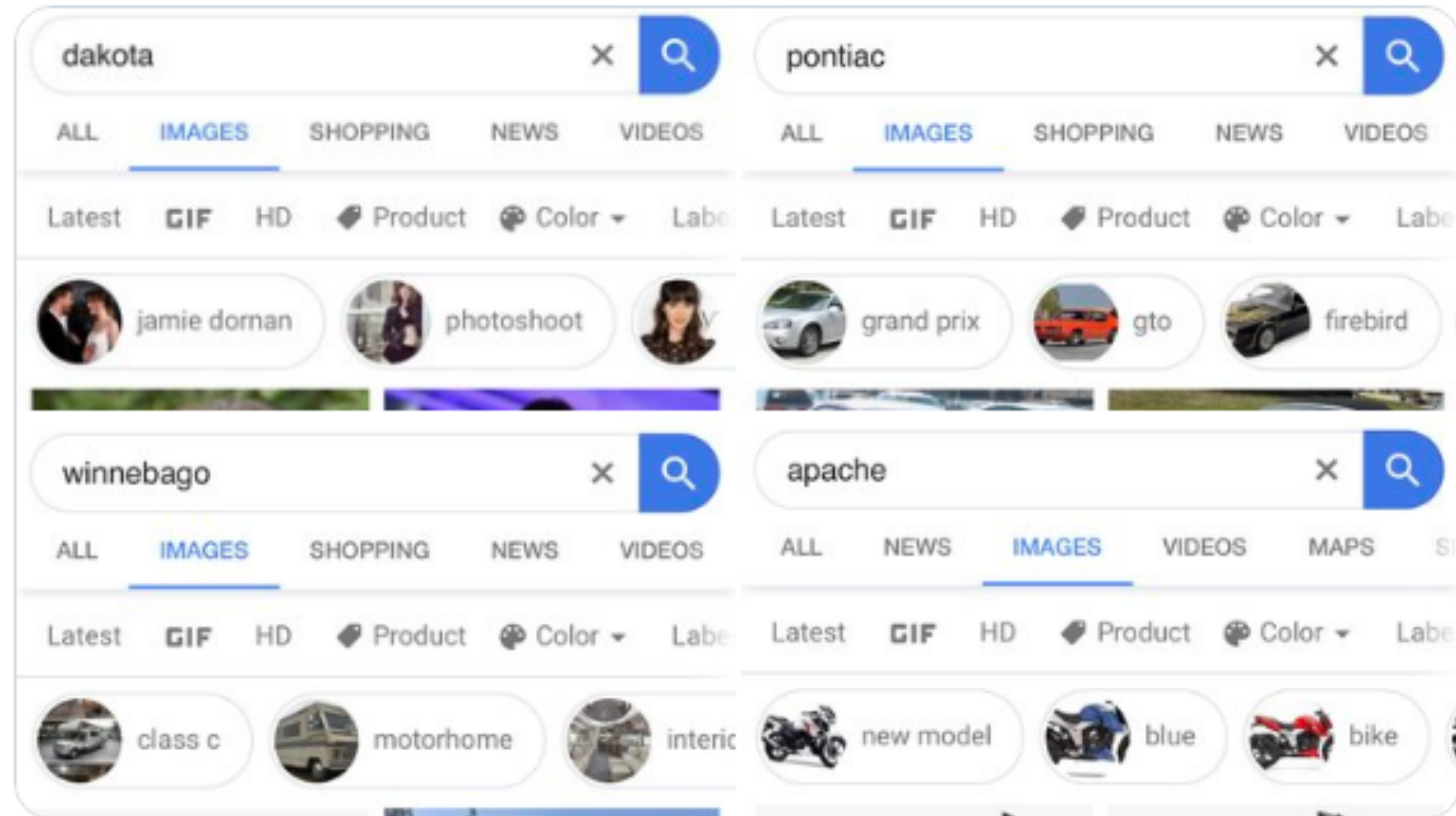
What does this symbol mean: ✓

COLORS *by Culture*

ORANGE	BROWN	YELLOW	GREEN	BLUE	PURPLE	RED	BLACK
WESTERN *Culture*							
Harvest Warmth Affordable	Practicality Comfort Stability	Happiness Joy Caution	Luck Jealousy Greed	Depression Trust Calm	Royalty Spirituality Wealth	Love Danger Action	Intimidation Death Mourning
FAR EASTERN *Culture*							
Happiness Spirituality Adaptability	Earth Industrious Mourning	Masculinity Sacred Royalty	Fertility Hope Life	Feminine Healing Relaxation	Wealth Privilege Spirituality	Prosperity Good Fortune Vitality	Health Prosperity Stability
INDIAN *Culture*							
Sacred Courage Love	Mourning	Sacred Auspicious	Hope Harvest Virtue	Sports Strength	Sorrow Comfort Nobility	Beauty Wealth Power	Evil Darkness Negativity
MIDDLE EASTERN *Culture*							
Mourning Loss	Harmony Earth Comfort	Happiness Prosperity Mourning	Strength Fertility Hope	Mourning Heaven Spirituality	Wealth Virtue Royalty	Danger Caution Evil	Mystery Mourning Rebirth

INTERNATIONAL COLOR SYMBOLISM

BLACK
WESTERN — death, evil, sin, funerals, mourning, rebellion, elegance, sophistication, formality, power, control

EASTERN — wealth, prosperity, health, masculinity, knowledge, mystery, evil, mourning

EUROPE — mourning, death, evil, formality, elegance, sophistication

MIDDLE EAST — rebirth, evil, mystery

AFRICA — age, wisdom, maturity, masculinity

BRAZIL — sophistication, authority, mourning, religion, formality

CHEROKEES — problems, death, represents the West

CHINA — trust, high quality, color for young boys

INDIA — laziness, anger, intolerance, apathy, evil, darkness, negativity, lack of desirability

ITALY — death, mourning, humility

JAPAN — night, unknown, nonbeing, mystery, anger

S. KOREA — darkness, mystery, mourning

THAILAND — unhappiness, bad luck, evil

AUSTRALIAN ABORIGINES — ceremonial color

WHITE
WESTERN — purity, peace, elegance, wedding color, brides, angels, doctors, antiseptic

EASTERN — death, mourning, funerals, sadness, purity, age, unhappiness, misfortune

EUROPE — purity, cleanliness, emptiness, neutrality, antiseptic, surrender

MIDDLE EAST — purity, mourning

AFRICA — victory, purity

CHEROKEES — peace, happiness, represents the South

CHINA — death, mourning, virginity, purity, humility, age, misfortune

INDIA — creation, rebirth, light, serenity, reincarnation, peace, purity, unhappiness, widow, death, funerals

IRELAND — leisure, sports, peace

ITALY — virtue, purity

JAPAN — death, mourning

S. KOREA — purity, innocence, morality, birth & death, patriotism

THAILAND — purity, auspiciousness

YELLOW
WESTERN — happiness, joy, hope, optimism, creativity, energy, awareness, hazards, warning, weakness, femininity

EASTERN — sacredness, sovereignty, earth, power, royalty, sun, happiness, masculinity

EUROPE — happiness, joy, quality, weakness, hazard, warning

MIDDLE EAST — happiness, prosperity

AFRICA — wealth, high rank, religion, ceremony, visibility

AUSTRALIA — resurrection, rebirth

CHINA — sacredness, sovereignty, nourishment, royalty, honor, masculinity

EGYPT — soul, sun, happiness, prosperity, mourning

FRANCE — summer, joy, jealousy

GREECE — sadness

INDIA — merchants, sacredness, auspiciousness, peace, happiness, meditation, mental development

JAPAN — courage, nobility, beauty, refinement, aristocracy, cheerfulness

MEXICO — mourning

NETHERLANDS — food

SAUDI ARABIA — strength, reliability

THAILAND — Buddhism, royalty, auspiciousness, color for Monday

GREEN
WESTERN — nature, spring, new birth, regeneration, luck, go, environmental awareness, money, jealousy, greed, Saint Patrick's Day

EASTERN — eternity, new life, regeneration, family, health, prosperity, peace

EUROPE — nature, fertility, confidence, jealousy, inexperience

MIDDLE EAST — Islam, strength, fertility, luck, wealth, prestige

CHINA — spring, youth, birth, infidelity, exorcism, desirability, disgrace

EGYPT — hope, spring, fertility

INDIA — Islam, hope, new beginnings, nature, harvest, virtue, happiness

INDONESIA — a forbidden color

IRELAND — Ireland – the Emerald Isle, patriotism, nationalism

ISLAM — perfect faith

ISRAEL — bad news

JAPAN — eternal life, youth

S. KOREA — youth, energy

NORTH AFRICA — corruption

SAUDI ARABIA — wealth, prestige

SOUTH AFRICA — death

THAILAND — color for Wednesday

BLUE
WESTERN — trust, loyalty, authority, conservatism, business, peace, calm, depression, sadness, masculinity

EASTERN — immortality, wealth, self-cultivation

EUROPE — truth, responsibility, fidelity, serenity

MIDDLE EAST — safety, protection

BELGIUM — traditionally used for baby girls

CHEROKEES — defeat, trouble

CHINA — immortality, femininity

EGYPT — truth, justice, virtue, faith, protection, reproduction

FRANCE — water, reliability, trust

INDIA — heavens, love, truth, mercy, strength, bravery, manliness, determination

INDONESIA — sadness

IRAN — heaven, spirituality, mourning, immortality

ISRAEL — coat of arms

ITALY — mourning, heaven, purity

S. KOREA — integrity, mourning

MEXICO — trust, serenity, mourning

THAILAND — color for Friday

TURKEY — healing, wealth, repels evil

PURPLE
WESTERN — royalty, spirituality, faith wealth, fame, high-ranking positions of authority, luxury, calm, magic

EASTERN — wealth, nobility, privilege, sorrow, mourning

EUROPE — royalty, nobility, luxury, power, vanity

MIDDLE EAST — wealth

BRAZIL — death, mourning

EGYPT — virtue, faith

FRANCE — freedom, peace

INDIA — sorrow, unhappiness

ITALY — death, mourning, endurance of suffering, nobility

JAPAN — wealth, privilege, power, royalty

THAILAND — death, mourning, widows, color for Saturday

PINK
WESTERN — love, romance, femininity, childhood, babies, nurturing, sweetness, Valentine's Day

EASTERN — marriage, femininity

EUROPE — baby girls, delicate, flirtation, sensitivity, serenity, femininity

BELGIUM — traditionally used for baby boys

JAPAN — spring, femininity, youth, good health, well-liked by both males & females

S. KOREA — trust

THAILAND — color for Tuesday

RED
WESTERN — stop, danger, anger, blood, energy, excitement, action, adventure, love, passion, Valentine's Day

EASTERN — prosperity, good fortune, happiness, worn by brides, celebration, communism

EUROPE — visibility, cheapness, loudness

MIDDLE EAST — danger, caution, evil

AFRICA — death, mourning

CHINA — good fortune, happiness, celebration, summoning, vitality, prosperity, long life, wedding color

ENGLAND — power, authority, government

FRANCE — passionate love, lust, virility

INDIA — purity, love, sensuality, fertility, beauty, wealth, power, wedding color, married woman, fear, fire

ITALY — light, fidelity

JAPAN — life, fertility, passion, strength, anger, danger, self-sacrifice

S. KOREA — good fortune, passion

NETHERLANDS — nature, government, royalty

RUSSIA — communism, revolution, wedding color

THAILAND — Buddhism, color for Sunday

TURKEY — death

ORANGE
WESTERN — energy, vitality, excitement, adventure, creativity, caution, construction, harvest, autumn, affordability, Halloween (with black)

EASTERN — love, happiness, spirituality, humility, good health, immortality

EUROPE — purity, cleanliness, good

MIDDLE EAST — mourning, loss

AUSTRALIA — animals

BRAZIL — environment

FRANCE — earth

INDIA — the most sacred color, purity, courage, sacrifice, religious abstinence, death, rebellion

IRELAND — religious color for Protestants, appears on the Irish flag along with white for peace & green for Catholics

JAPAN — love, happiness, courage

NETHERLANDS — royalty, color of the Dutch royal family

THAILAND — color for Thursday

BROWN
WESTERN — comfort, stability, practicality, wholesomeness, dullness, fertility, organic, earthiness, poverty

EASTERN — earth, mourning

EUROPE — masculinity, earth

MIDDLE EAST — earth, comfort

AFRICA — earth

AUSTRALIA — color of the land

BRAZIL — nature

CHINA — earth

INDIA — color of mourning

INDONESIA — earth

JAPAN — earth, strength, durability

NICARAGUA — disapproval

[... R]ed is lucky for Chinese people. [...] Thai people will be offended if you print their name in red — it's the color that monks employ to write names on coffins, so to write someone's name in red is to "wish them dead".

— Bruce Lawson, Notes on Designing Websites for the Asian Market

Cultural Identity

- The identity or feeling of belonging to a group.

- Group of people sharing the same cultural identity or upbringing.

- Heavily impacted by a person's *cultural arena*, the place where a person lives.

- Immigrants adjust to the culture of the country they immigrated to linearly over time.

- It is possible to have the ability to obtain competence within two cultures without losing one's sense of identity or having to identity with one culture over the other.

Cultural Identity

Issues can arise when...

- ...the majority culture is assumed by default.

- ...designs created in one cultural environment get transplanted into a different environment.

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@walterstephanie — Stéphanie Walter

Aspects of Human Diversity

Gender

Gender is the range of characteristics pertaining to, and differentiating between, masculinity and femininity.

— Wikipedia

Tatiana Mac

Tatiana Mac (they/hän/she) is an independent American engineer and open source maintainer who created and is building *Self-Defined*, a modern dictionary about us; and *Devs of Colour*, a database that will prioritise finding undiscovered Black/brown talent through a thoughtful search algorithm.

As a consultant, they work directly with organisations to build clear and coherent products and design systems.

They believe the *trifecta of accessibility, performance, and inclusion* can work symbiotically to improve our social landscape digitally and physically. When ethically-minded, they think technologists can dismantle exclusionary systems in favour of community-focused, inclusive ones.

Adapted from tatianamac.com/about

Act III

Our Own

*GENDER

Select ...

| Select One |
| Male |
| Female |

Gender *

○ Male   ○ Female

Gender* ❓

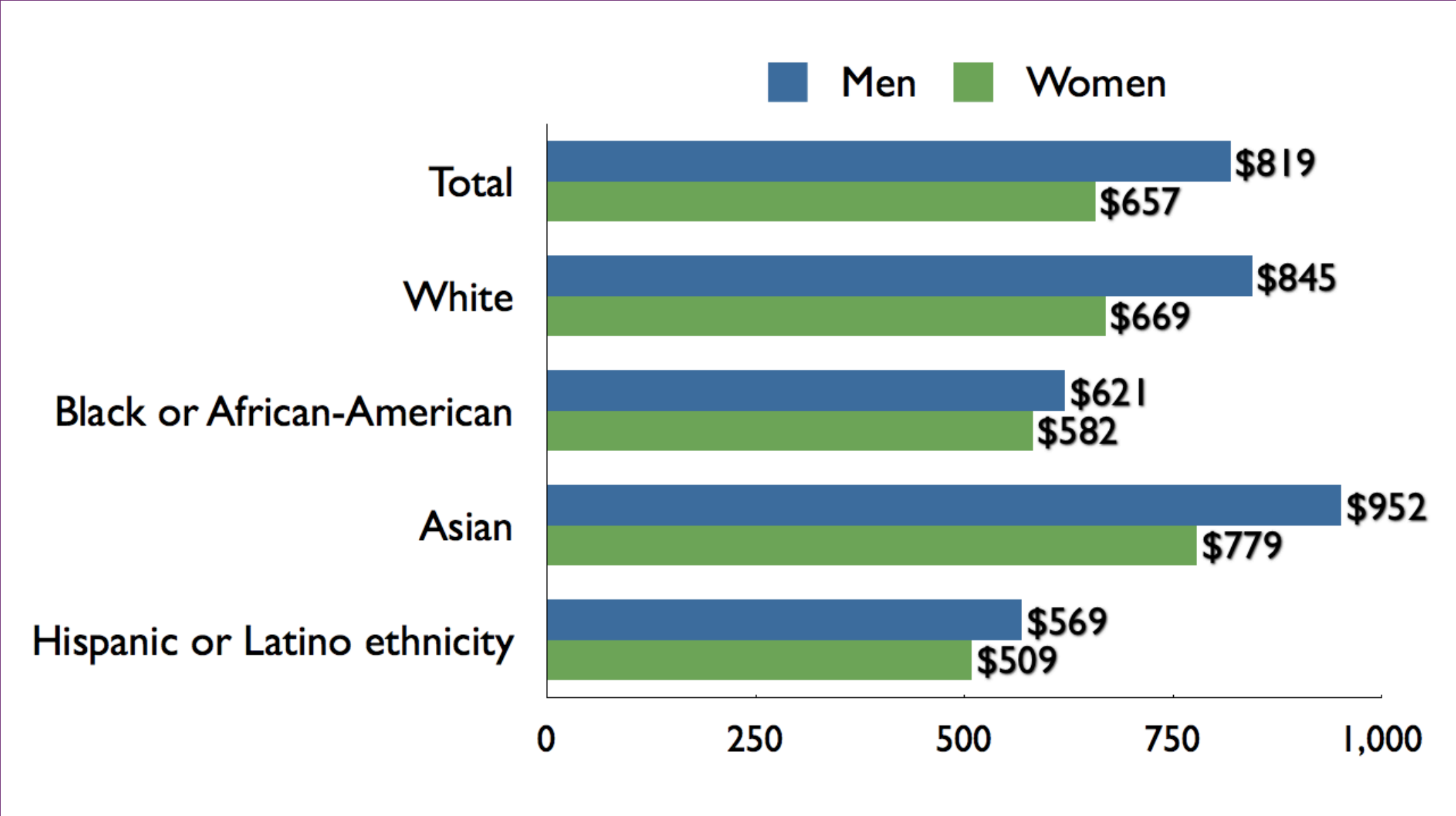| ✓ Select gender |
| Male (M) |
| Female (F) |
| Unspecified (X) |
| Undisclosed (U) |

Gender •

| ✓ Select your gender |
| Male |
| Female |

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Perpetuated Exclusion*

*unintentional

Gender Pay Gap

Aspects of Human Diversity

Race

Photos by Nathan Dumlao and Kareem Hayes on Unsplash

On the word "Race" in modern Germany

- Basically unused in day to day life.

- No biological basis for "races". Sometimes people considered "one race" have more genetic variability than people of "different races".

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Und doch existieren „Menschen-rassen" tatsächlich. Nicht als biologische Fakten, sondern als – unbewusste – Denkstrukturen und Urteile in unseren Köpfen.

— Ulrich Kattman (Bundeszentrale für Politische Bildung)

And yet "human races" actually exist. Not as biological facts, but as – subconscious – thinking structures and judgements in our minds.

— Ulrich Kattman (Bundeszentrale für Politische Bildung)

Many in Germany use words like "extreme right-wing" or "xenophobic" instead of "racist" because it is seen more as an ideology.

That means that racist acts are often not acknowledged as being racist.

That's a problem.

How does racism apply to inclusive design?

- Racism usually means a continuous, systematic discrimination.

- What can your product, your design, do to counteract that discrimination?

- Can you offer stipends or free tickets for members of groups that are targeted by racists?

[…] These 2 young girls were looking for a place with WiFi to do their school work so they sat near Taco Bell to connect […]. A lot of us don't have to worry about having a proper WiFi connection or a quiet place to work from home. Every student from preschool through college should have free access to reliable WiFi especially now. What can we do as a community to pull together for students who need something as simple as WiFi in order to succeed? […]

Update: The girls were identified by their school district and given hotspots! I'm sure there are other children in need, I am hoping they all get the tools they need! If local businesses would like to donate their space to set up outdoor internet cafes, please let me know. I would love to help rally up supplies and man power!

Aspects of Human Diversity

Age

Ageism is discrimination because of your age.

The stereotypes and infantilization of older and younger people by patronizing language affects older and younger people's self-esteem and behaviors.

— Wikipedia

After repeatedly hearing a stereotype that older or younger people are useless, older and younger people may begin to feel like dependent, non-contributing members of society. They may start to perceive themselves [...] in the same ways that others in society see them.

— Wikipedia

Studies have also specifically shown that when older and younger people hear these stereotypes about their supposed incompetence and uselessness, they perform worse on measures of competence and memory.

— Wikipedia

Common ageist assumptions:

- The person is too young to understand the big picture.

- The person is too old to handle technology.

- Millennials have it easy.

- Ageism is also inadvertently embedded in the ways that we generate statistics, for example through data collected based on large age categories (e.g., '60+') foisting anyone over 60 into "the grey zone" which obscures differences. (Wikipedia)

Aspects of Human Diversity
Ability & Disability
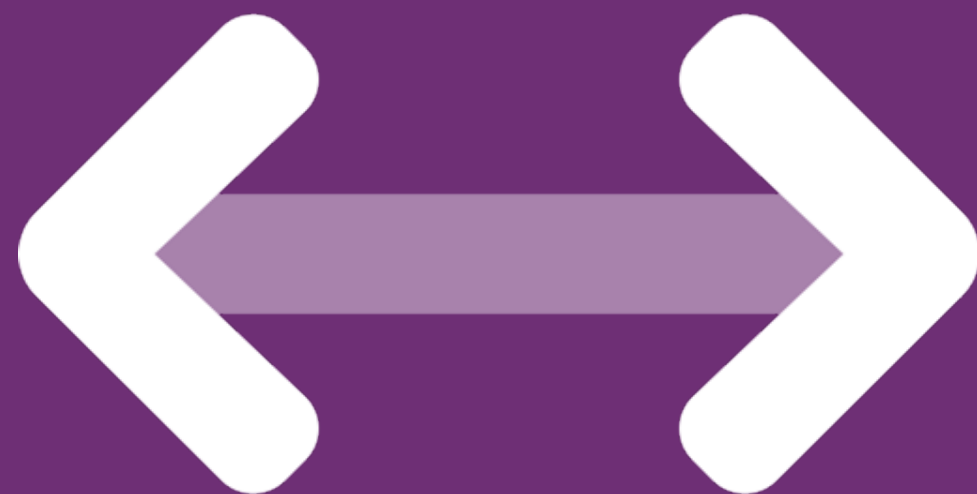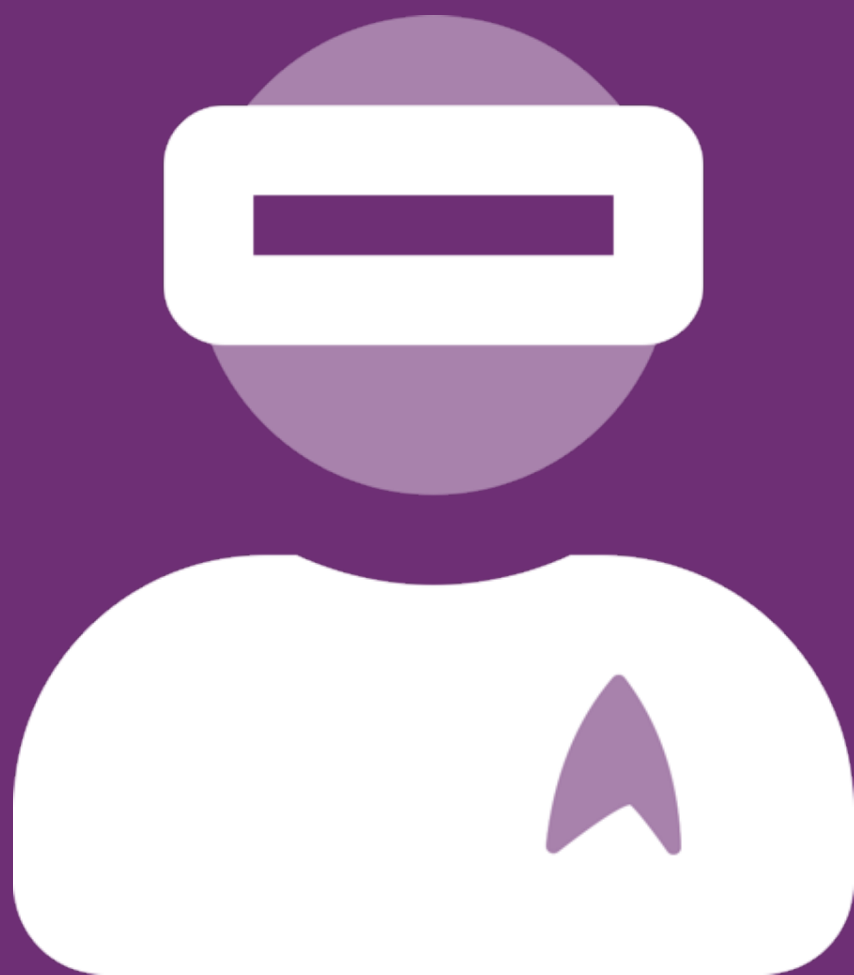
You cannot talk about **accessibility** without talking about **disabilities**.

E.J. Mason (#GithubDropICE)
@codeability

Love 2 b called "differently abled" because it suggests that I have some kind of paranatural ability beyond the ken of mortal man.

And I do, but you can still just call me "disabled". Promise.

11:39 PM · Nov 15, 2019 · Twitter Web App

10 Retweets **102** Likes
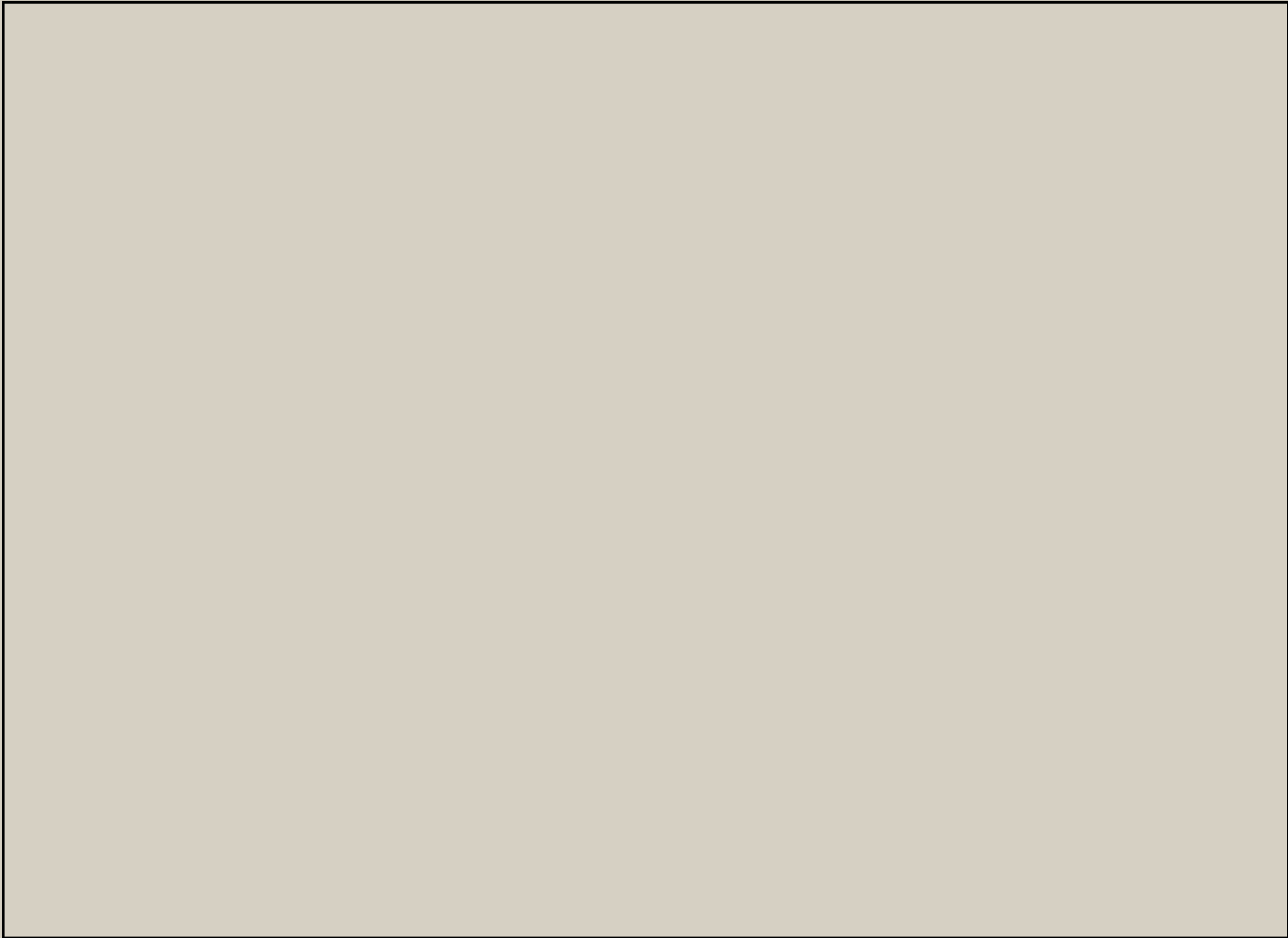
Talking & Planning

Talking & Planning

Graphic Design (of an image of a website)

Talking & Planning
Graphic Design (of an image of a website)
HTML/CSS/JavaScript

Talking & Planning

Graphic Design (of an image of a website)

HTML/CSS/JavaScript

CMS

Talking & Planning

Graphic Design (of an image of a website)

HTML/CSS/JavaScript

CMS

Content

Talking & Planning

Graphic Design (of an image of a website)

HTML/CSS/JavaScript

CMS

Content
   Iterations

Talking & Planning

Graphic Design (of an image of a website)

HTML/CSS/JavaScript

CMS Performance

Content

Iterations

Talking & Planning

Graphic Design (of an image of a website)

HTML/CSS/JavaScript

CMS Performance Security

Content

Iterations

Hotfixes

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Iterations

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Security

Data protection

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CMS Performance Security

Content

Iterations

Hotfixes

Quality Control

Accessibility

Data protection

Talking & Planning

Graphic Design (of an image of a website)

HTML/CSS/JavaScript

CMS Performance Security Data protection

Content

Iterations

Hotfixes

Quality Control

Accessibility

Accessibility is a sign of good quality.

Designing inclusive software results in improved usability and customer satisfaction.

— Microsoft's app developer guide

Accessibility must be a **foundational** value
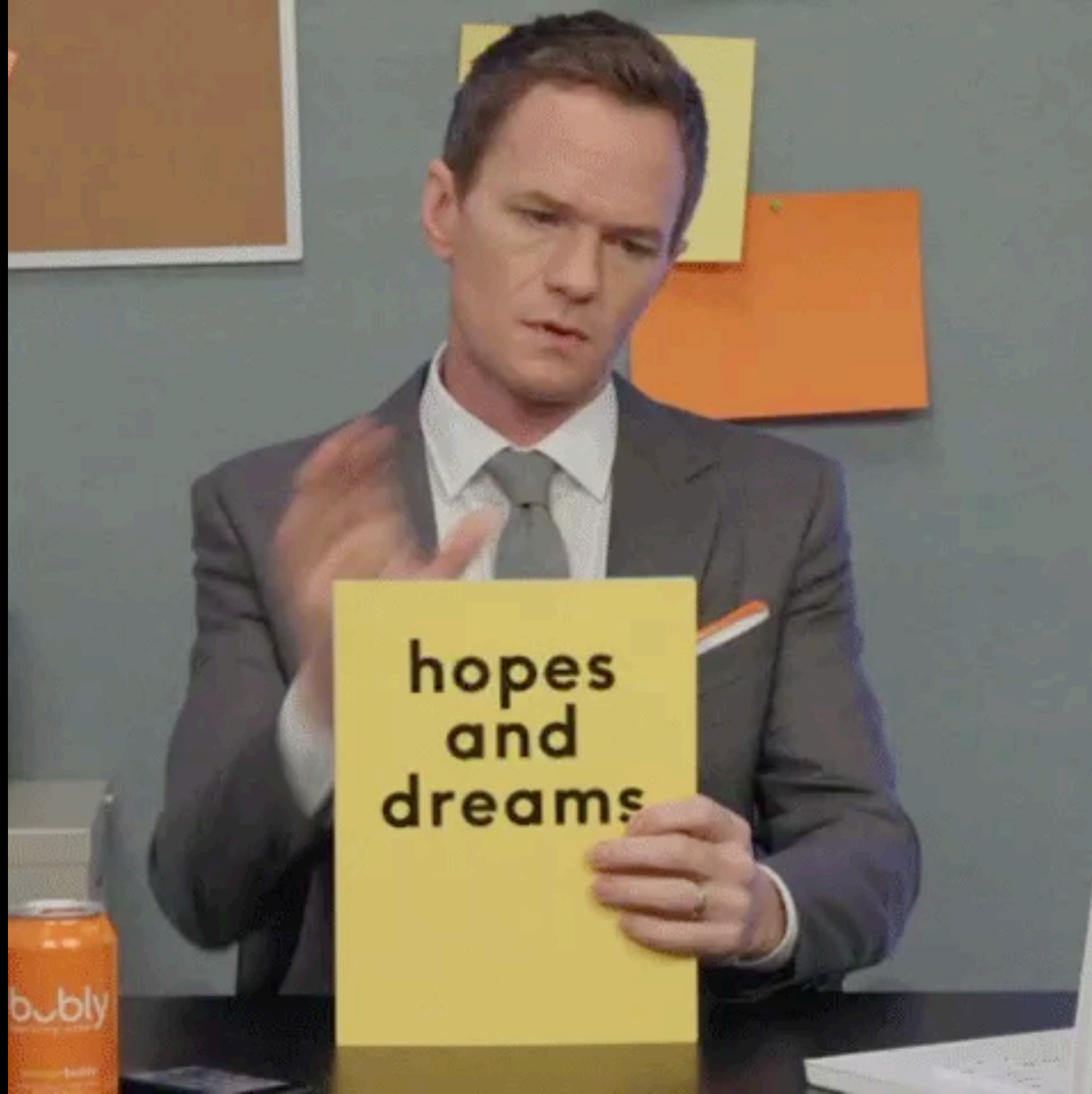
Accessible Web Development is Complicated

WebAIM Million Study

- **60%** of the 1 million home pages had **ARIA present.**

- Home pages **with ARIA** present averaged **11.2 more** detectable **errors** than pages without ARIA.

- Pages with a valid **HTML5 doctype** had significantly **more page elements** (average of 844 vs. 605) **and errors** (average of 61.9 vs. 53.3) than those with other doctypes.

- **2.1M layout tables** were detected compared to only 114k data tables.

More Complex **=** **Less** Accessible

Taming complexity often comes with **even more complexity**

I'm too nice.

ARIA[4] can help,
but not in every situation.

[4] Accessible Rich Internet Applications

Accessibility is **not** only Screen Readers

Most **non-screen reader** assistive technology does not work well with ARIA.

Dragon

Nuance released the lucky version 13 of Dragon Naturally Speaking. I've been doing some preliminary testing and here's what Dragon 13 supports (so far) in terms of ARIA:

- `role="button"`

- `role="link"`

- `role="radio"`

- `role="checkbox"`

- `aria-label`

That's just in about 30 mins of testing, so there's definitely more to test, but this is a huge step.

How Dragon Naturally Speaking works with ARIA » Simply Accessible (2014)

I'm a real link | As am I

I'm a placeholder link (no href)

I'm an ARIA link made out of a div

I'm an ARIA link made out of a button

I'm a paragraph of text with an ARIA link within me. Where I be?

I'm a real link | As am I

I'm a placeholder link (no href)

I'm an ARIA link made out of a div

I'm an ARIA link made out of a button

I'm a paragraph of text with an ARIA link within me. Where I be?

Normal Button   aria-disabled button   Actually Disabled Button

Difference of Tool Knowledge

Users often **don't know** what their computers can do for them.

Other users **hack** their assistive technology to work with inaccessible sites.

Some users **write CSS and JavaScript** to change websites to their needs.

User **=**
Disability Type **✕**
Proficiency **✕**
Accessibility Support
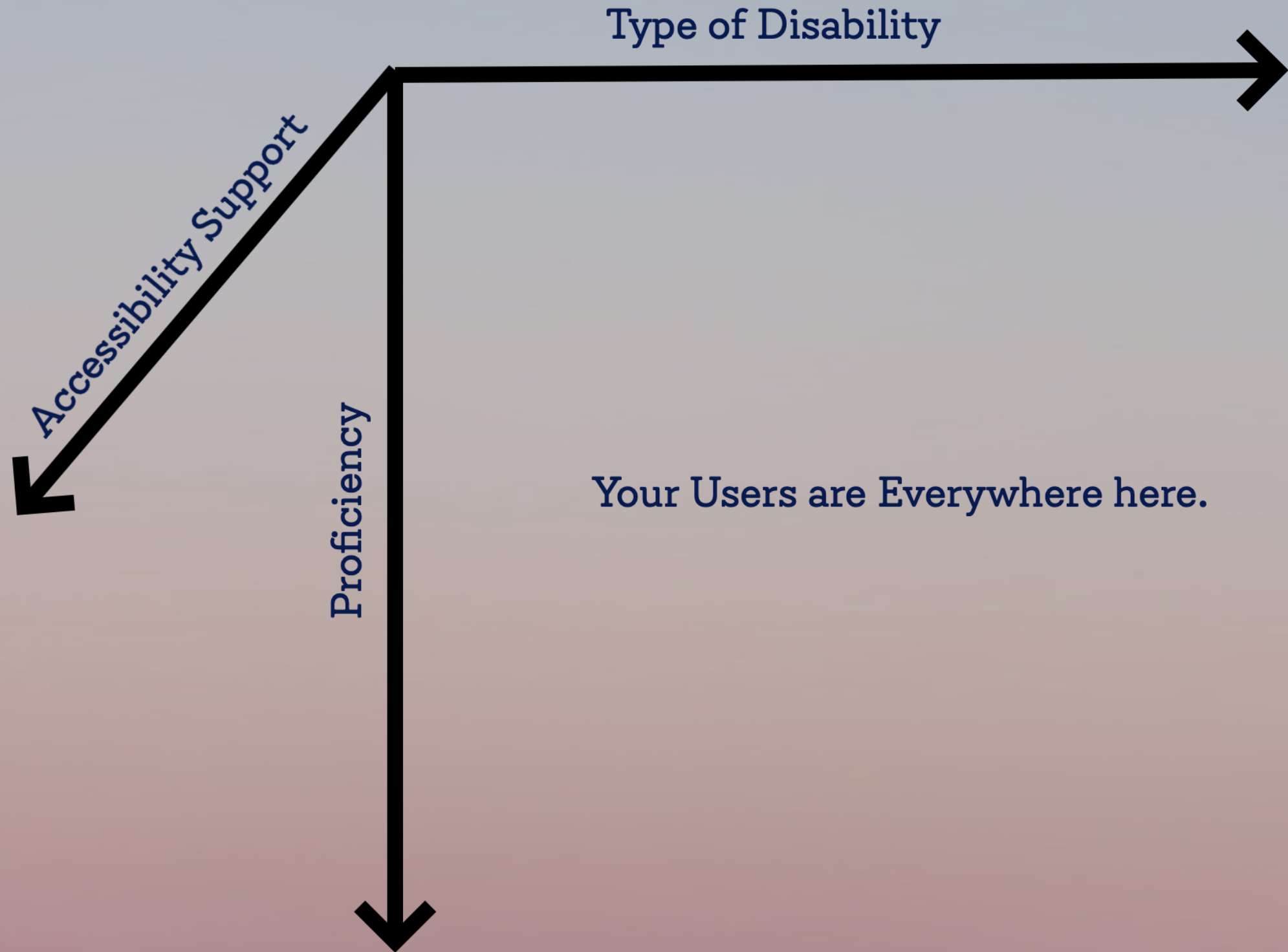
Test with Diverse Users

Give Users **Agency**

Allow use of assistive technology that **suits** a particular **user's needs**.

Try not to **prescribe** how to use a component.

Use HTML to **describe** elements.

Don't expect **any** proficiency from users.

Don't break conventions!

Users have many tools to use!

Reader Mode

yatil.net

Home Archive Talks Uses About Me

EN   13 May 2020   speaking tips

Better Online Presentations

Here are some of the tips I have gathered from doing online Zoom talks since 2015. I hope they help with your talk as well.

Sound

The sound on Zoom meetings is usually really compressed to be efficiently transmitted to the attendees, therefore investing into sound gear should not be the highest priority. That said, clear, intelligible sound is much more important than everything else. If you're hard to understand or if there's a constant noise

🔒 yatil.net

A | A

Hide Reader View 🧭

Font   New York ›

Website Settings ⚙

...tations

...thered from ... I hope they

...ually really

compressed to be efficiently transmitted to the attendees, therefore investing into sound gear should not be the highest priority. That said, clear, intelligible sound is much more important than everything else. If you're hard to understand or if there's a constant noise from your line, attendees might not be able to follow you.

Always use headphones. I have seen guidance that headphones look amateurish, but that is not true from my point of view. You want to understand audience questions or your moderator. That's just much more reliable when they are actually in or on your ears.

Reader Mode

Native Support:

- Safari (since 2010, can set to default since 2015)

- Firefox (2015)

- Edge (2015)

- Chrome (soon??????)

w3.org

Introduction to Web Accessibility

w3c_wai

7-9 minutes

Page Contents

Accessibility in Context

The power of the Web is in its universality.

Access by everyone regardless of disability is an essential aspect.

The Web is fundamentally designed to work for all people, whatever their hardware, software, language, location, or ability. When the Web meets this goal, it is accessible to people with a diverse range of hearing, movement, sight, and cognitive ability.
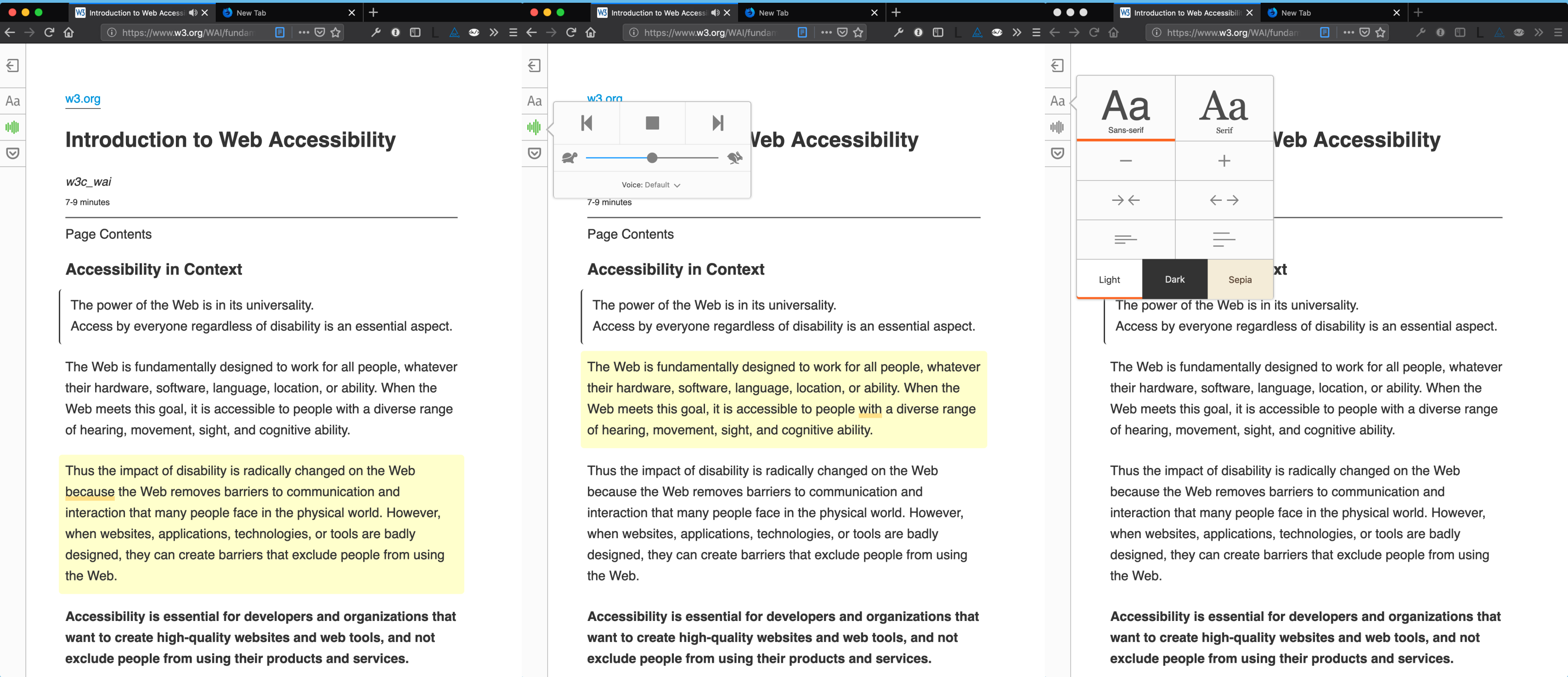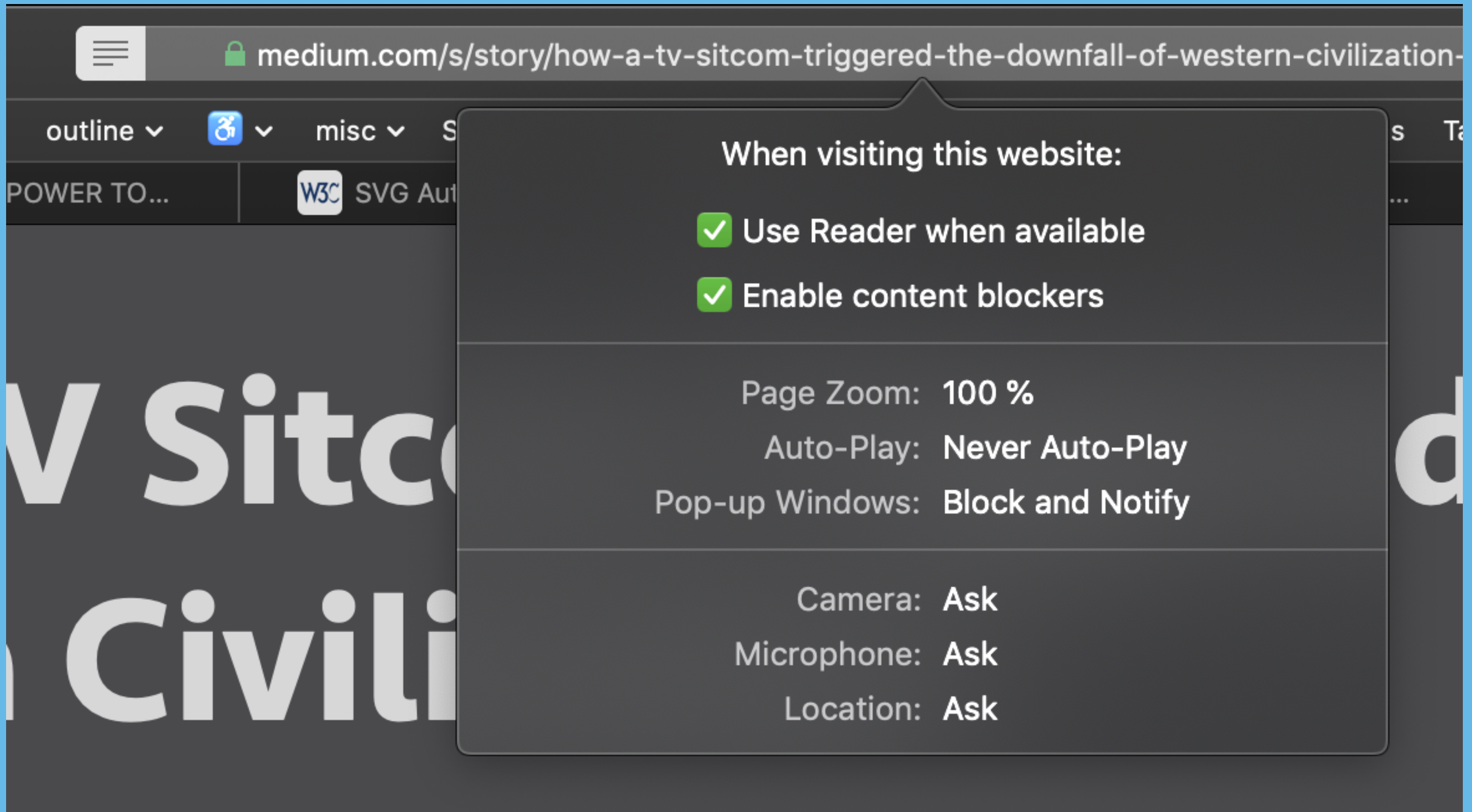
Thus the impact of disability is radically changed on the Web because the Web removes barriers to communication and interaction that many people face in the physical world. However, when websites, applications, technologies, or tools are badly designed, they can create barriers that exclude people from using the Web.

Accessibility is essential for developers and organizations that want to create high-quality websites and web tools, and not exclude people from using their products and services.

More Website Settings

Leveraging Preferences in the
Operating System

Search

General

General

Vision

VoiceOver

Zoom

Display

Speech

Media

Descriptions

Captions

Hearing

☐ Invert colours
☐ Use greyscale
☑ Differentiate without colour

☐ Reduce motion
☐ Increase contrast
☐ Reduce transparency

Display contrast:

Normal   Maximum

Cursor size:

Normal   Large

☑ Shake mouse pointer to locate
Quickly move the mouse pointer back and forth to make it bigger.

Display resolution and brightness can be adjusted in Display preferences:

Open Display Preferences...

☐ Show Accessibility status in menu bar

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prefers-reduced-motion
Media Query

```css
@media (prefers-reduced-motion: reduce) {
  * {
    transition: none !important;
    animation: none !important;
  }
}
```

Respecting
Reduced Motion

Or, better, progressively enhance:

```css
@media (prefers-reduced-motion: no-preference) {
  /* All animation code */
}
```

Support

prefers-reduced-motion media query

CSS media query based on a user preference for preferring reduced motion (animation, etc).

IE	Edge	Firefox	Chrome	Safari	iOS Safari	Opera Mini	Chrome for Android	Android Browser	Samsung Internet
9	88	86	88	13.1	13.7			4.4	12.0
10	89	87	89	14	14.4			4.4.4	13.0
11	90	88	90	14.1	14.5	all	90	90	14.0
		89	91	TP					

✓ ✗ Partial Support

Global: 91.81% + 0% = 91.81%

Data from caniuse.com | Embed from caniuse.bitsofco.de

18 May 2021

Source: Can I Use

On Windows … it's complicated

Short note on prefers-reduced-motion and puzzled (Windows) users

[Patrick H. Lauke @ TPG Blog](#)

prefers-color-scheme
Media Query

```css
:root {
  --color: #333;
  --bgcolor: #eee;
}

@media (prefers-color-scheme: dark) {
  :root {
    --color: #eee;
    --bgcolor: #333;
  }
}

html {
  color: var(--color);
  background-color: var(--bgcolor);
}
```

Developers & Designers also get many more tools to use!

Media Queries Level 5

- inverted-colors

- prefers-reduced-transparency

- prefers-contrast (no-preference/high/low)

- forced-colors (none/active)

How to tackle **Inclusive Design**?

80% of Success is Showing Up

— Woody Allen

This also applies to inclusive design thinking.

- Keep an eye out for people who might be negatively affected by a design decision.

- Integrate minoritized groups into your

  - stories

  - personas

  - QA process

  - design/develop/project teams

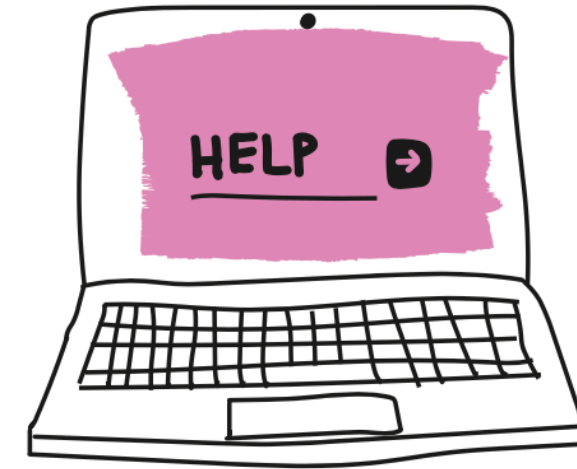# Cards for Humanity

How can you meet their needs?

Mike Blandford, 75
is very independent

Deal new pair

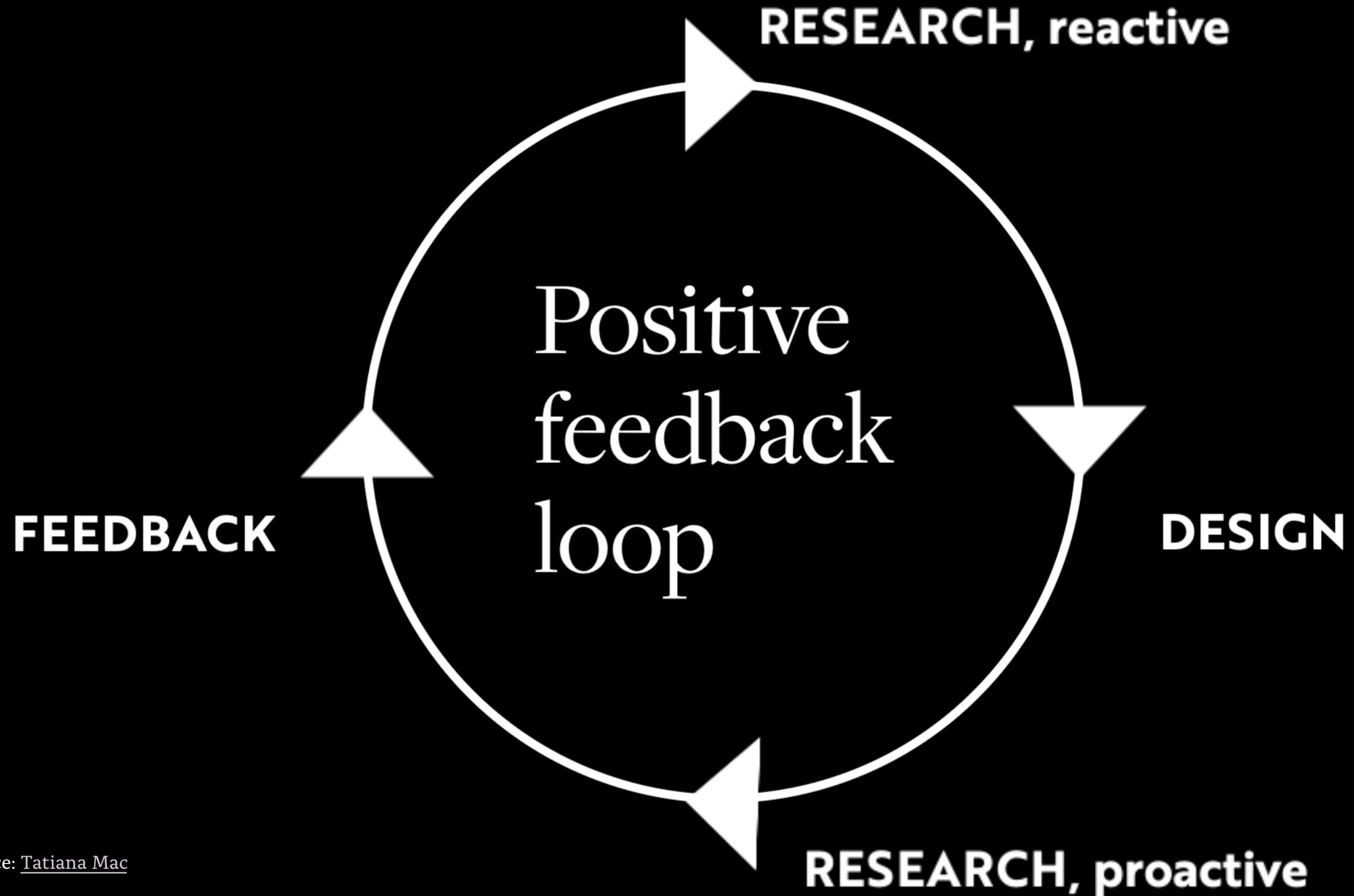**and is not very confident when using a computer**

 View needs   Swap card

 View needs   Swap card

Nothing about us, without us.

— Disability Rights Motto

As long as **workplaces** are not inclusive, their **products** won't be **truly** inclusive.
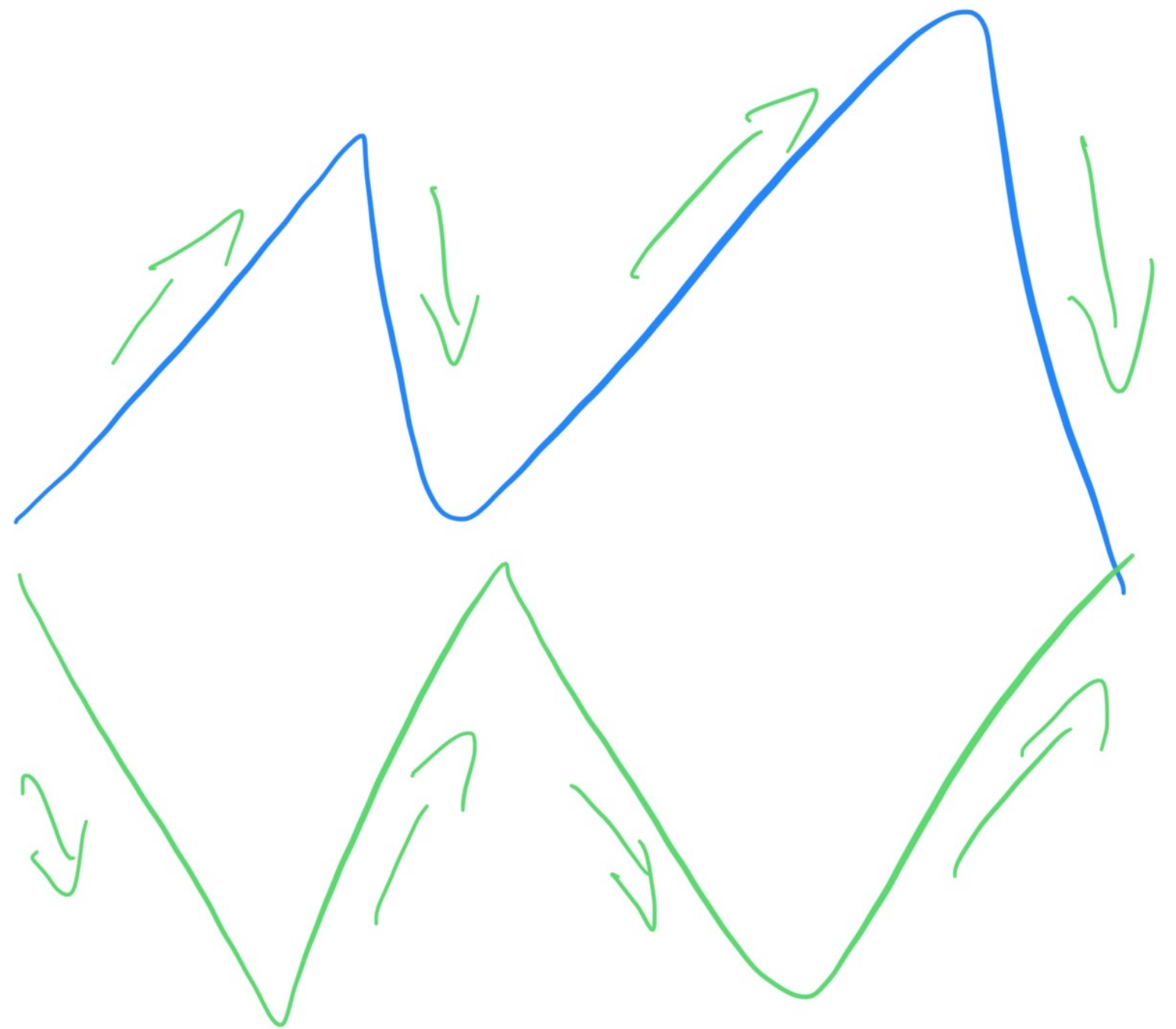
Positive feedback loop

RESEARCH, reactive

DESIGN

RESEARCH, proactive

FEEDBACK

Question design decision as a habit

You **cannot** solve Inclusive Design in code alone.

Brainstorm the feature.

Brainstorm the implementation.

Conclusion

- Do not make assumptions about users and the tools they use

- Prepare your content and design for different circumstances

- Embrace the uncertainty

Thank You!

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Never be cruel, never be cowardly. And never ever eat pears! Remember – hate is always foolish... and love, is always wise. Always try, to be nice and never fail to be kind. [...] Laugh hard. Run fast. Be kind.

— 12th Doctor