

Web Accessibility in The Land of the Rising Sun

Makoto Ueki 

 Infoaxia

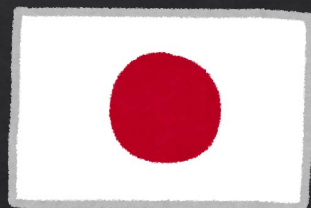
Who I am

- ◆ Web Accessibility Consultant
 - ◆ Tokyo, JAPAN (*The land of the Rising Sun*)
- ◆ W3C AGWG Participant since 2005
 - ◆ WCAG 2.0, WCAG 2.1 and Silver (WCAG 3)
- ◆ Former Chairman of Web Accessibility Committee in Japan
 - ◆ For 7 years (2012 – 2019)



How is Web Accessibility Going in Japan?

No Legal Requirements/Obligations



- ◆ Even for public sectors
- ◆ New law came into effect in 2016
 - ◆ Act for Eliminating Discrimination against Persons with Disabilities
 - ◆ No requirements / obligations for web/digital accessibility

National Standard for Web Accessibility

◇ JIS X 8341-3

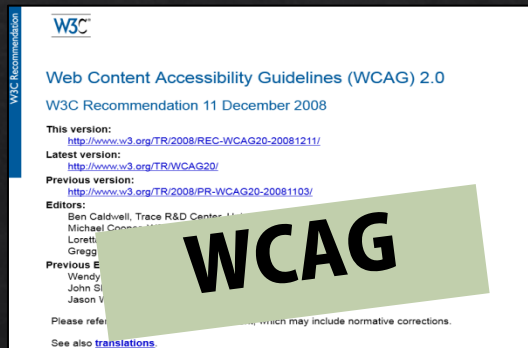
* JIS = Japanese Industrial Standards

◇ Guidelines for older persons and persons with disabilities-
Information and communications
equipment, software and
services-Part 3: Web content

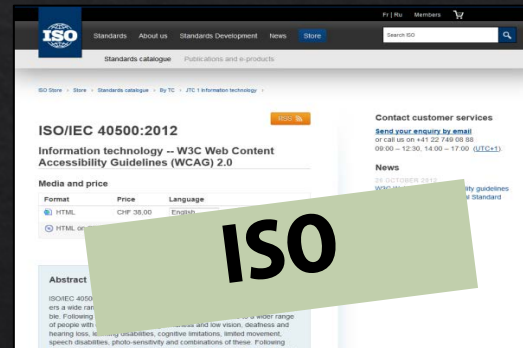


JIS = ISO/IEC = WCAG

- ◇ “JIS X 8341-3:2016” is identical to “ISO/IEC 40500:2012”
- ◇ “ISO/IEC 40500:2012” is “WCAG 2.0”



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We Needed to **Change** Our Game Plan.

Gap between Other Countries and Japan

- ◆ They think about “how” based on laws
 - ◆ US, Canada, EU, South Korea, etc...
- ◆ We still think about “what” and “why”
 - ◆ What is “Accessibility” ?
 - ◆ Why should we do it ?
 - ◆ Will it make money ?

Simply Because We don't have a law.

And we won't have any legal pressure.

We are **different.**

We **are** different.

We **think** different.

We **speak** different.

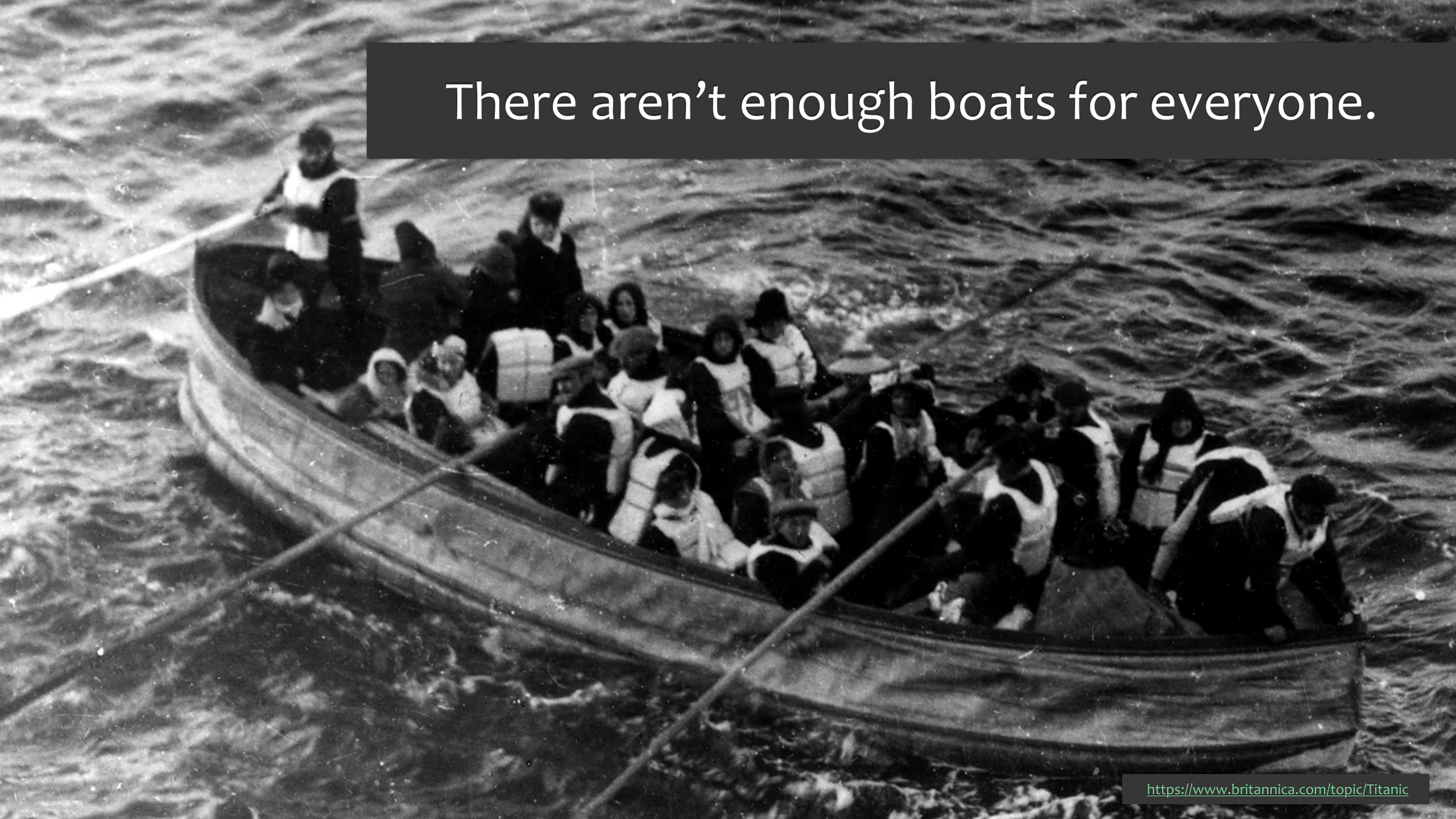
We **expect** different.


We **perceive** different.

We are on a luxury cruise ship.



There aren't enough boats for everyone.





The captain needs to persuade men
to dive into the sea.

“If you dive, you'll be a hero!”



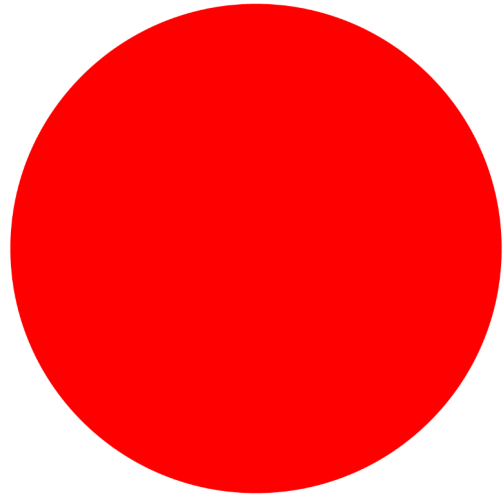
“At a time like this, a true gentleman would dive.”



**“According to the regulations,
all the men must dive into the sea.”**



“Everyone else has already dived.”



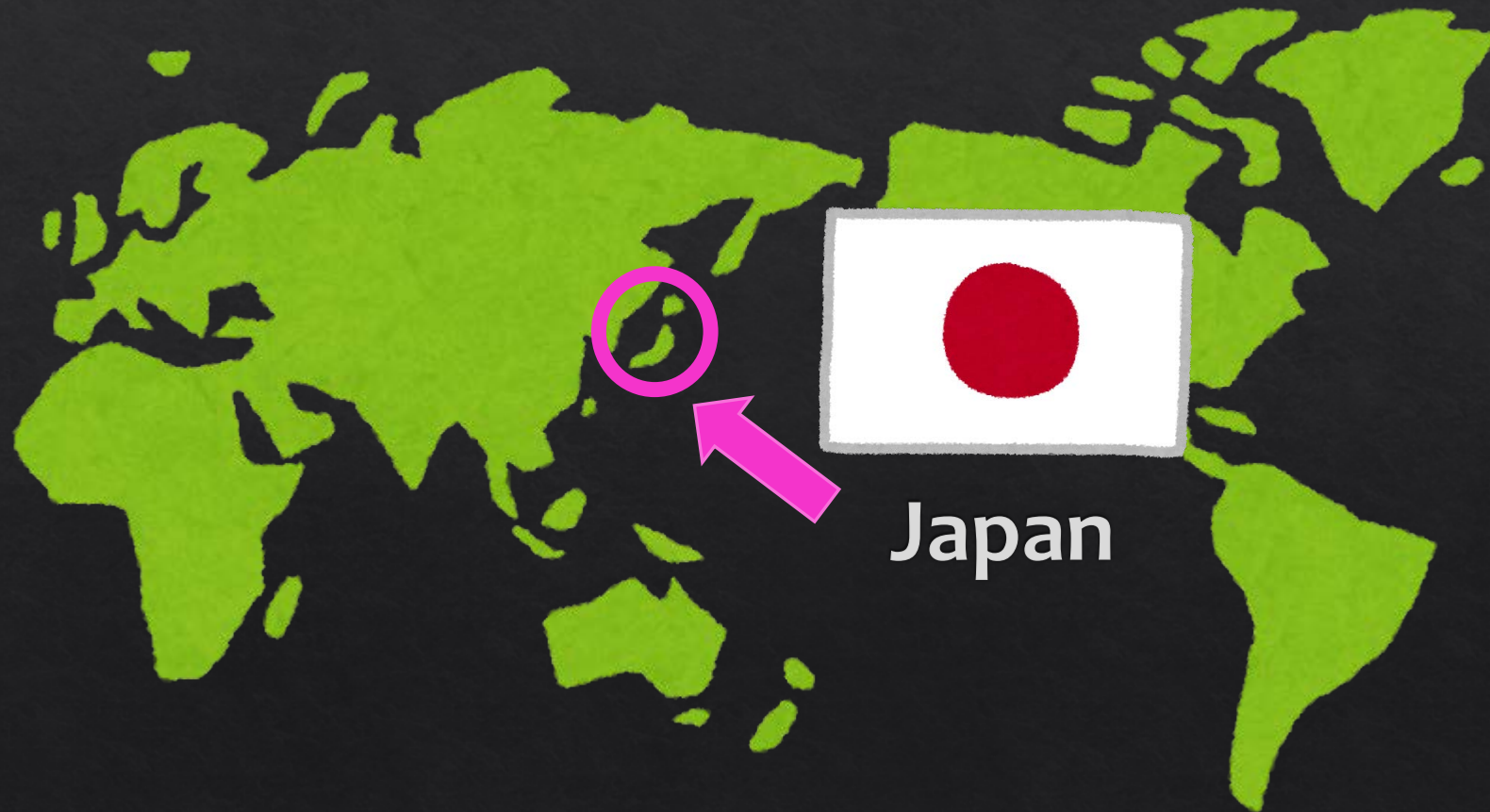
Question

Which country has the most aging population?



Answer

Which country has the most aging population?



Percentage of the population aged 65 and over

1. **Japan** **28.2**

2. Italy 22.8

3. Finland 21.9

4. Portugal 21.8

5. Greece 21.8

6. Germany 21.4

7. Bulgaria 21.3

8. Croatia 20.4

9. France 20.3

10. Latvia 20.3

12. Sweden 19.9

Number of the population aged 65 and over

(in millions)

1. China	166.37	6. Brazil	17.79
2. India	84.90	7. Germany	17.78
3. United States	52.76	8. Indonesia	15.16
4. Japan	35.58	9. Italy	13.76
5. Russian Federation	21.42	10. France	13.16
		47. Sweden	2.05

Accessibility Benefits Older People.

Overlapping Needs



Vision



Hearing



Physical



Cognitive

“Older People” and “People with Disabilities”

- ◆ Have difficulties
 - ◆ Listening to audio, Using mouse or keyboard
 - ◆ Decreasing contrast sensitivity
 - ◆ Changing color perception and sensitivity
 - ◆ Short term memory limitations
- and so on

Accessibility is about people with disabilities.

I can be disabled.

You can be disabled.

Everyone can be disabled.

What if we include

“temporary” and **“situational”** disabilities ?

Accessibility Benefits All of Us.

Overlapping Needs



Vision



Hearing



Physical



Cognitive

People **without** Disabilities can also ...

- ◆ Have difficulties
 - ◆ Reading text with insufficient color contrast
 - ◆ Listening to audio
 - ◆ Using mouse
 - ◆ Focusing on screen contents

and so on



Vision

Users who are going to use your Web
will prefer sufficient color contrast.



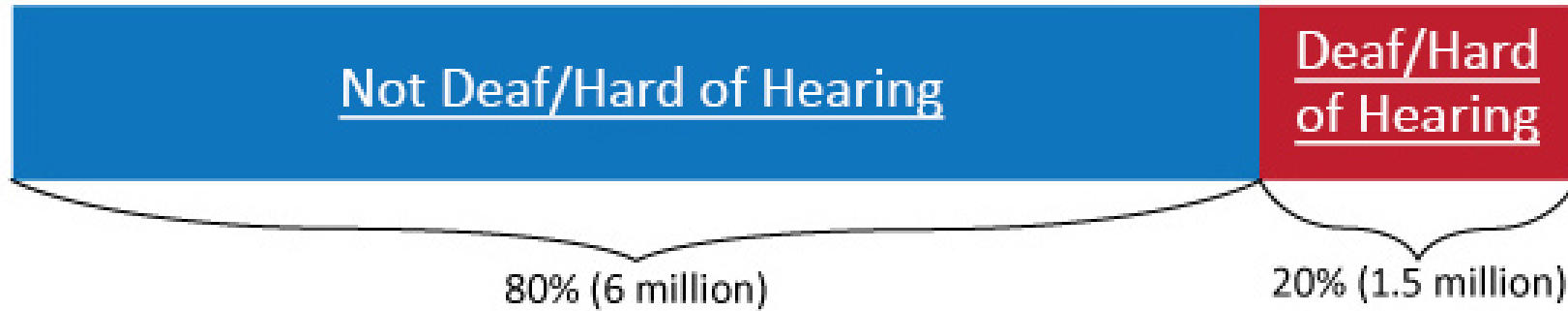


Hearing

Users who are going to use your Web
may not be able to play sounds.



Viewers using closed captions:



“

This suggests that 80% of television viewers used closed captions for reasons other than hearing loss, and that closed captions benefit many more than just those who require them for accessibility.

Voice Recognition App



WC規格では、適用範囲の中で、
障害者および障害のある人を含む全ての
利用者と述べています。

このようにユーザーがどのようにWebを
利用しているかを考えてみると、以下の
組み合わせによって実に多種多様であるこ
とがわかります。

人による違い
多様化する利用環境
利用している場面や状況
Webコンテンツは利用する一
に合った形に変えて使うことができ
それがWebのいいところです。

もし、あなたのウェブコンテンツが特定の
利用環境でしか使えないとしたら、
本来ならあなたが手に入れることができた
はずの様々な機会、ビジネスチャンスが
損失している可能性があります。

だからこそ、ユーザーがWebコンテンツ
好きな形に変えて利用できるかどうかどう
まりWebコンテンツをアクセシビリティ
いるかどうかがとても重要

Accessibility



Physical ability

Users who are going to use your Web
may not be able to use mice.





Cognitive ability

Users who are going to use your Web
may be confused to understand.



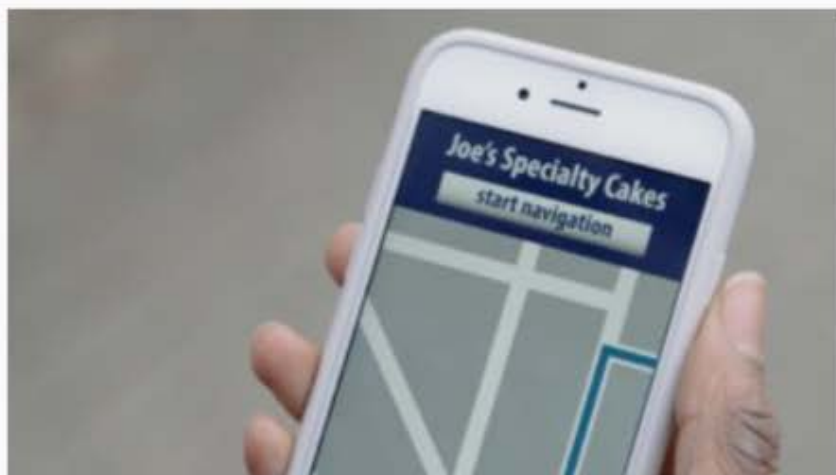
Bad design also impacts anyone who isn't particularly confident around computers.



Keyboard Compatibility



Video Captions



Colors with Good Contrast



Customizable Text

Don't look at people.

Let's think about “disabilities”

to get wider range of users

i.e. to enhance your UX.

Web Accessibility Issues

NOTICE

- ◆ Not issues generally found on Japanese websites
- ◆ Top 10 issues from Infoaxia's reports in 2019
 - ◆ 10,417 issues from 754 pages on 36 websites
 - ◆ Not only automated testing but also manual testing
 - ◆ Most of our clients are global companies
- ◆ FOR YOUR REFERENCE ONLY

Web Accessibility Issues Top 10

- | | |
|----------------------------------|----------------------------------|
| 1. Text Alternative 33.6% | 6. Form Control Label |
| 2. Color Contrast 11.9% | 7. Current page / location /step |
| 3. Heading Markup 8.1% | 8. Link Text |
| 4. Keyboard Inaccessible | 9. Focus Order |
| 5. Focus Invisible | 10. Use of Colors |

They are **not** that difficult.

How can we make it
more accessible and inclusive?

The Most Basic of Basics

How to make it more accessible and inclusive

The Most Basic 10 of Basics

1. Page Title
2. HTML markup
3. Link Text
4. Text Alternative
5. Color
6. Resizable Content
7. Keyboard Operable
8. Form Controls
9. Error Message
10. Captions

1. Provide Descriptive Page Title

Do...

```
<title>About Funka Accessibility Days 2020</title>
```

Don't...

```
<title>About</title>
```


2. Markup Headings and Lists

Do...

```
<h1>About Funka Accessibility Days 2020</h1>
```

```
<h2>Day 1</h2>
```

```
<h3>Sessions</h3>
```

```
<h2>Day 2</h2>
```

```
<h3>Sessions</h3>
```

967:レトロデザイン

フィルム写真の色合いに

デジタルカメラで再現

「ネットに興味 モールでゲット」

インスタ、動画・買い物充実

「ネットに興味 モールでゲット」

ネット上で興味をもち、実際にモールでゲットする。この流れが、最近のネット利用者の行動パターンとなっている。特に、InstagramやYouTubeなどの動画プラットフォームを通じて、商品の魅力を知り、実際にモールで購入するという流れが、注目を集めている。

また、ネット上で興味をもち、実際にモールでゲットする。この流れが、最近のネット利用者の行動パターンとなっている。特に、InstagramやYouTubeなどの動画プラットフォームを通じて、商品の魅力を知り、実際にモールで購入するという流れが、注目を集めている。

サン、粉の地獄ゲーム

ネット通販の道産品を実店舗で

「100%の粉木の課題を解決」

ネット通販の道産品を実店舗で。この流れが、最近のネット利用者の行動パターンとなっている。特に、InstagramやYouTubeなどの動画プラットフォームを通じて、商品の魅力を知り、実際にモールで購入するという流れが、注目を集めている。

2020年のトレンドとマーケティング戦略

2020年

記事を、記念に

加工機、次期半導体に応用

変換機Vチューバー特需

ローランド、開発に反映

音声翻訳機、世界で230万台

海産の異物AIで選り分け

耐熱不織布を電池の絶縁材に

海産の異物AIで選り分け

音声翻訳機、世界で230万台

事業拡大・事業承継のためのM&A活用セミナー

主催：日本経済新聞社 協賛：M&A・ビズポーターズ

2. Markup Headings and Lists

Speakers

- Shadi Abou-Zahra
- Makoto Ueki
- Gareth Ford William
- Susanna Laurin

Do...

```
<h2>Speakers</h1>
```

```
<ul>
```

```
<li>Shadi Abou-Zahra</li>
```

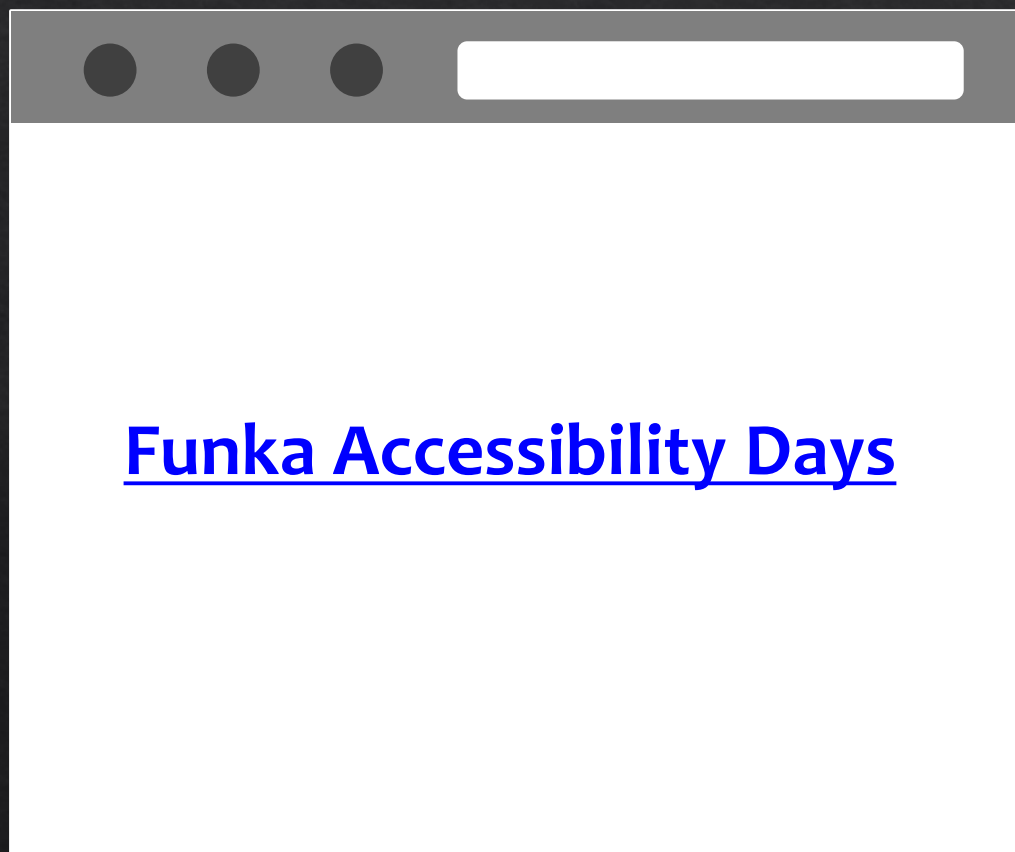
```
<li>Makoto Ueki</li>
```

```
.....
```

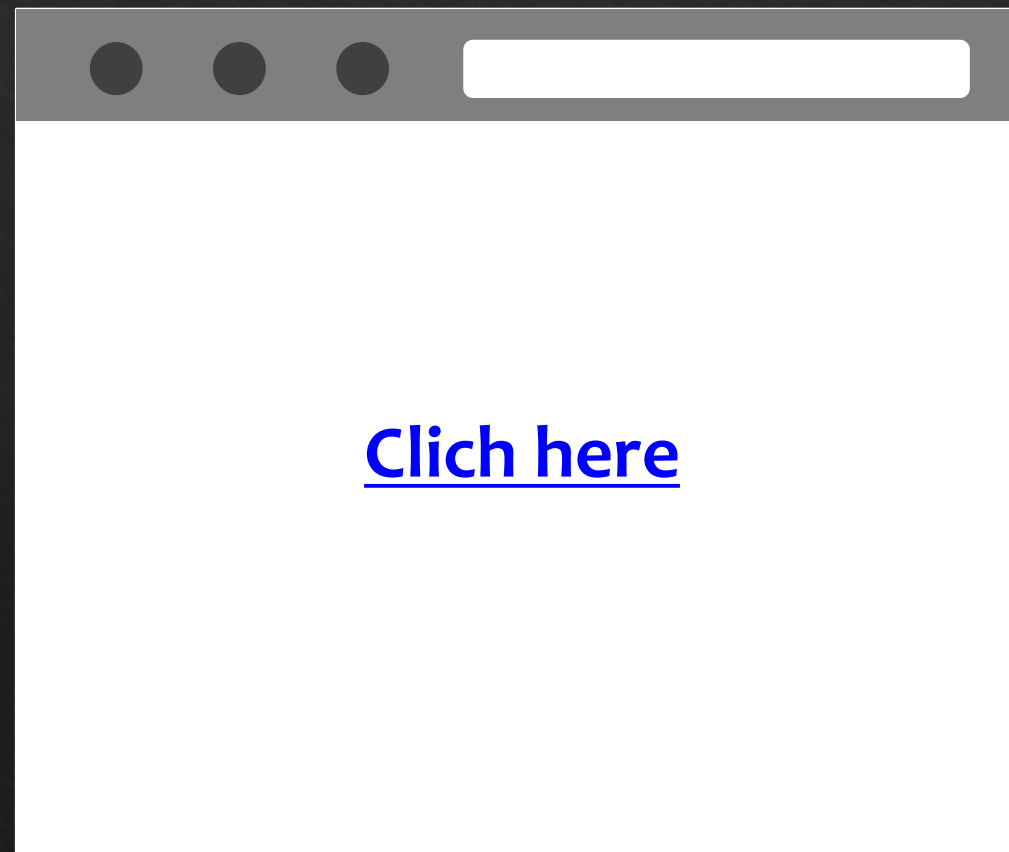
```
</ul>
```


3. Provide Descriptive Link Text

Do ...



Don't ...



4. Provide Text Alternatives for Images



Do...

```

```

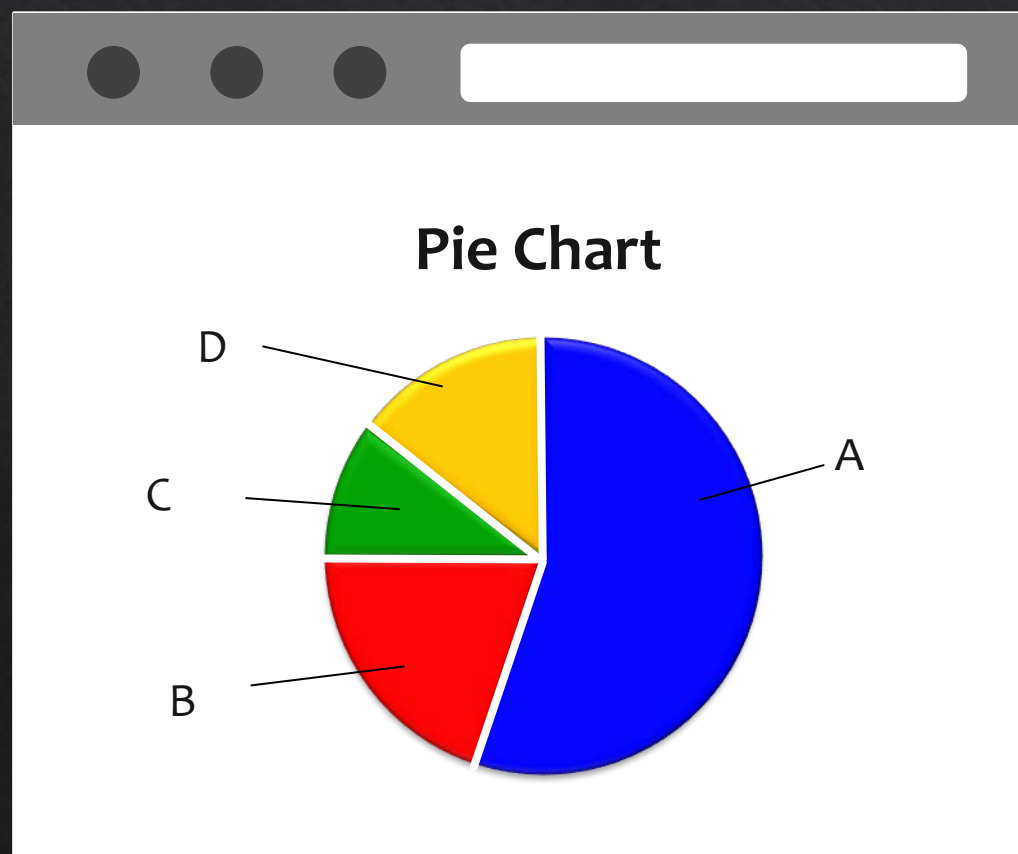
Don't...

```

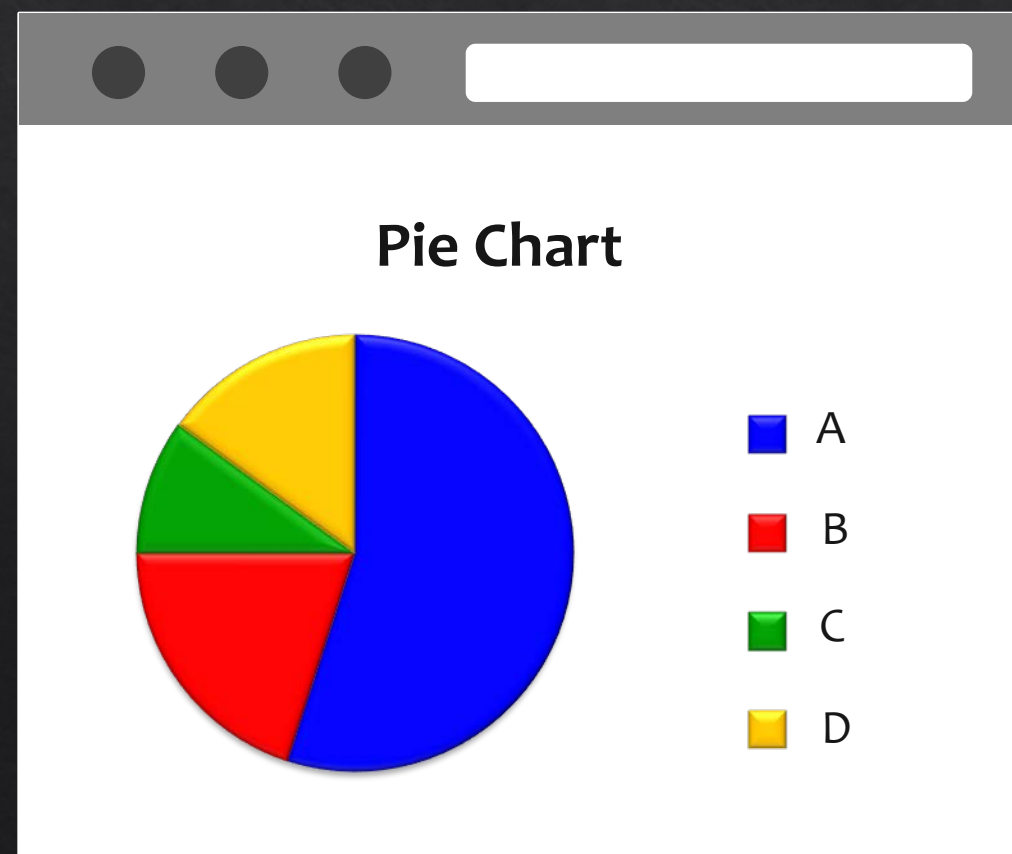
```

5. Use Colors wisely and Keep Contrast

Do ...



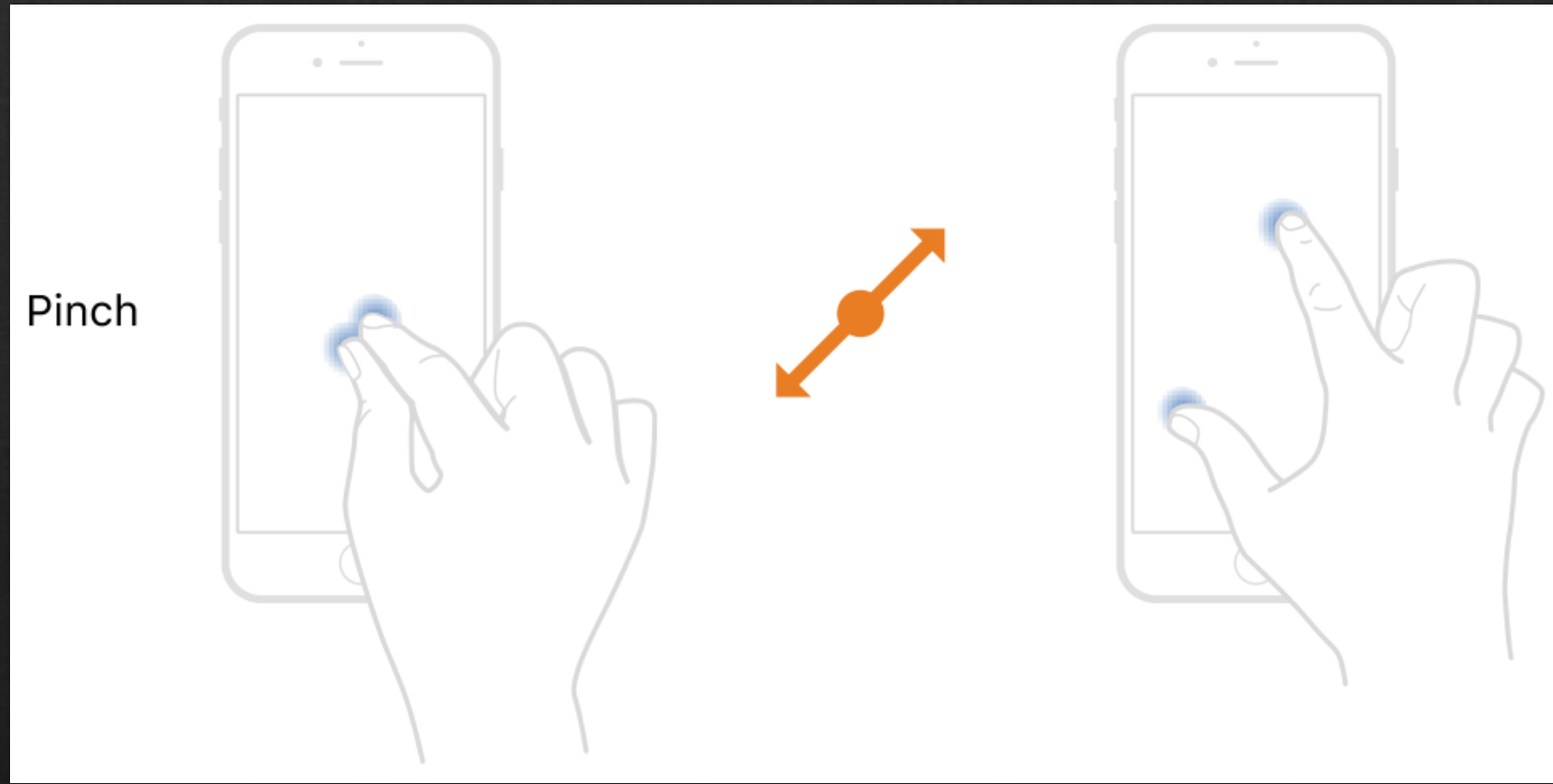
Don't ...



5. Don't Rely on Colors and Keep Contrast

- This color contrast ratio is 11.98:1
- This color contrast ratio is 8.13:1
- This color contrast ratio is 4.69:1
- ✗ This color contrast ratio is 3.18:1
- ✗ This color contrast ratio is 1.75:1

6. Make Contents Resizable



7. Make Every Component Keyboard Operable

Button

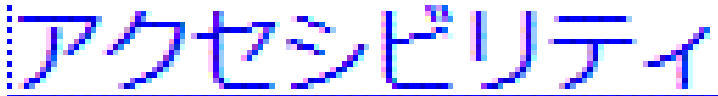
Do...

`<button type="button">`

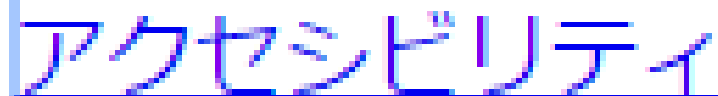
Don't...

`<div>` OR `<a>`

7. Make Every Component Keyboard Operable



アクセシビリティ



アクセシビリティ

Ensure that any focus indicators are visible.

8. Provide Labels for Form Controls



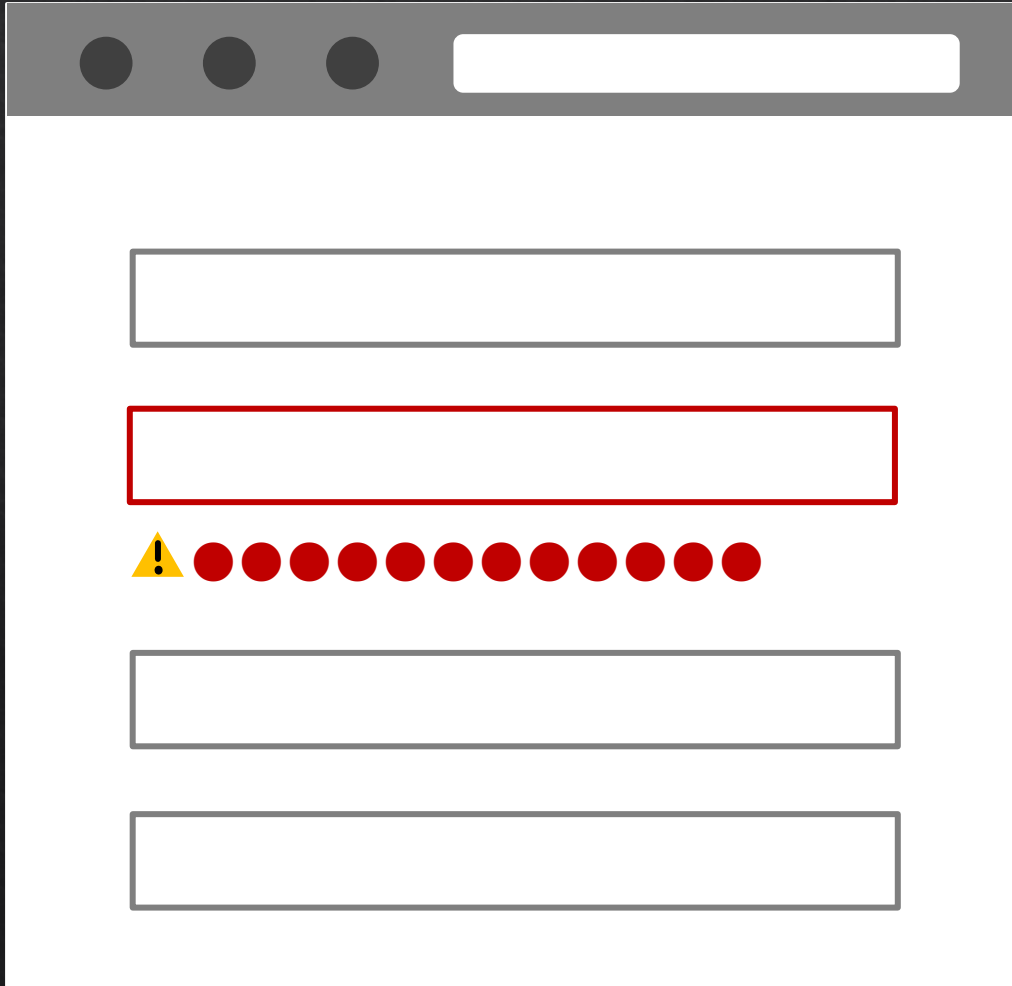
A web browser window with a gray title bar containing three window control buttons and a white address bar. The main content area is white and contains a form. The form has a label "Name" in bold black text to the left of a rectangular text input field. Below the input field, there are two radio buttons. The first radio button is followed by the text "Yes" in bold black font. The second radio button is followed by the text "No" in bold black font.

Do...

```
<label for="name">Name</label>
```

```
<input type="text" id="name">
```

9. Provide Understandable Error Messages



A web form with four input fields. The second field from the top is outlined in red, indicating an error. Below it is a row of 12 red dots, with the first dot containing a yellow warning triangle icon.

Do...

Password must contain between 8 and 12 letters or numbers.

Don't ...

Oops, something wasn't right.

10. Provide Captions for Videos



日本語

下書き保存 公開

+ 字幕

テキストとして編集

お願いしまーす	02:29:16
	02:30:18
[ニュース番組風のBGM] (植木) 番組の途中ですが	02:30:18
	02:32:18
臨時ニュースをお伝えします	02:32:18
	02:34:17
ただいま入りました情報によりますと	02:35:03

02:32:09 元に戻す やり直す

BREAKING NEWS

PC-Talkerがaria-current属性のサポートを向上

植木 真 アナウンサー

[ニュース番組風のBGM] (植木) 番組の途中ですが

02:32 / 12:28

キーボードショートカットを使用すると、字幕を素早く入力できます。

☐ 入力中は一時停止

00:00:00 00:05:00 00:10:00 00:15:00 00:18:04

[ブルドーザー...] (辻) (植木...) (2人) Accessi... [ブルドー...] ♪ [ヒップホップ系のアップテンポなBGM] (辻) 皆さん こ

Accessibility is the Web.

Let's make it happen.

“ The power of the Web is in its universality.
Access by everyone regardless of disability
is an essential aspect.”



Tim Berners-Lee

W3C Director and Inventor of the World Wide Web

Photo: <https://www.w3.org/People/Berners-Lee/>

Is Accessibility All About
People with Disabilities?



You cannot see the forest for the trees.

Domo Arigato!

Web Accessibility in The Land of the Rising Sun

Makoto Ueki 

 Infoaxia