

ACCESSIBILITY AND UNIVERSAL DESIGN

Lorraine Stanton

(Originally taught as a live
webinar to instructional
designers, along with
collaborator Laura
Watkins.)



THIS SESSION WILL HELP YOU:



Describe how learners may differ.



Describe how Universal Design can address different needs.



Identify potential accessibility concerns & ways to improve them.



Incorporate best practices of Universal Design going forward.

HOW MIGHT LEARNERS DIFFER?

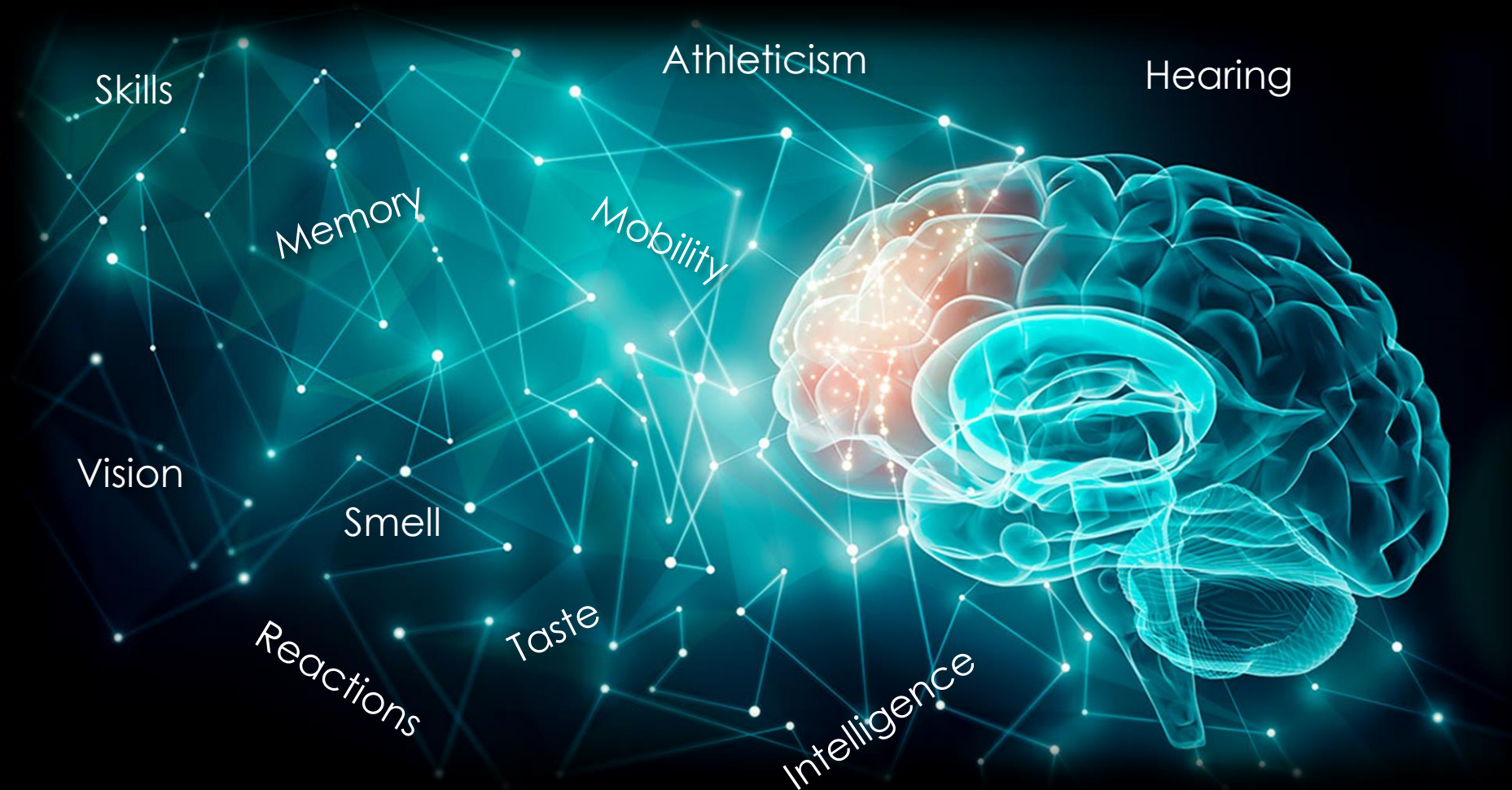


PEOPLE CAN DIFFER IN:

behavior
attitude customs gender
learning experiences abilities health
weaknesses senses skills habits
background religion age strengths
sociability heritage preferences
perspective language culture
styles ethnicity beliefs
personality

and so much more!

HOW DO ABILITIES DIFFER?



ABILITIES DIFFER IN:

- | | |
|--|--|
| ☐ Vision | ☐ Memory |
| ☐ Hearing | ☐ Skills |
| ☐ Physical Impairment | ☐ Knowledge |
| ☐ Physical Health | ☐ Autism |
| ☐ Mental Impairment | ☐ Social skills |
| ☐ Mental Health | ☐ Reading |
| ☐ Experience | ☐ Learning |
| ☐ Speech | ☐ Aptitude |



DISABILITY STATISTICS IN THE POPULATION:

- Vision – 10%
- Color Blindness – ~10%
- Hearing – 13%
- Physical Impairment – 13%
- Physical Health – 45%
- Mental Impairment – 3%
- Mental Health – 45%
(in their lifetime)
- Autism Spectrum – 10%
- Anxiety – ~18%
- Dyslexia - ~10%
- ADHD – 11%
- PTSD – 9%
- Speech - 4%
- Memory/Decline – 10%
(45 & over)

... that's 25%, or 1 in 4 adults with disability/special need!

CULTURAL DIVERSITY MAY DIFFER IN:

- Ethnicity
- Experiences
- Customs
- Practices
- Culture
- Beliefs
- Views



ENL (ENGLISH AS A NEW LANGUAGE)

- 14% of the US Population are immigrants.
- 10% are non-native English speakers.



ADDRESSING DIFFERENCES WITH **UNIVERSAL DESIGN**

Universal Design for Learning (UDL) is a design approach that seeks to accommodate the needs and abilities of all learners, while reducing unnecessary hurdles in the learning process.

So... how can we do this as Instructional Designers?



ACCESSIBILITY FOR ENGLISH LEARNERS

- Provide a clear intro to the topic.
- Use plain, clear language.
- Allow self-paced reading speed.
- Enhance content with pictures.
- Consider audio as an option, but with closed captions if added.
- Use a variety of Assessment types.
- Provide a clear summary of what was covered.



REPRESENTING DIVERSITY

Be sure to *positively* represent people of different:

- Names
- Ethnicities
- Cultures
- Women & Minorities (especially as leaders)
- Weight, Age, & Appearance
- Gender representation
- Abilities



PERSON-FIRST LANGUAGE

**Instead of
saying:**

Try saying:

Handicapped

Uses a wheelchair

Physically Disabled

Person with a mobility needs

Autistic

Person with autism

Blind

Uses a screen reader or
Person with vision
impairment

Mentally ill

Has an emotional disability

“Courageous”

Person who is successful,
skilled, etc.

DESIGNING FOR ANXIETY

Instead of:

Try to:

Timed, high pressure tests...

Offer self-paced knowledge checks that allow mastery.

Leaving users confused...

Explain what will happen next.

Not explaining consequences...

Make important information clear and explain why.

Making support hard to find...

Anticipate and prevent issues, and give users the support they need.

Leaving users wonder about their answers...

Explain why the answer is right or wrong.

ELEARNING ACCESSIBILITY WITH



Storyline 360
Rise 360

Universal Tips

- Course description
- Explain why/when/how
- Clear direction
- Consistent navigation
- Alternative navigation
- Simple, concise language
- Glossary
- Keywords

Storyline

- Alt text
- Closed caption
- Audio and visual alternatives
- Avoid timed slides
- Use high-contrast color
- Avoid auto-play
- Provide Transcript
- Pay attention to object order
- Avoid small font

Rise

- Alt Text
- Already has strong contrast
- Text is zoomable in browser 200%
- Internal links when possible
- Directions for video
- Use video and audio as option, provide alternate.

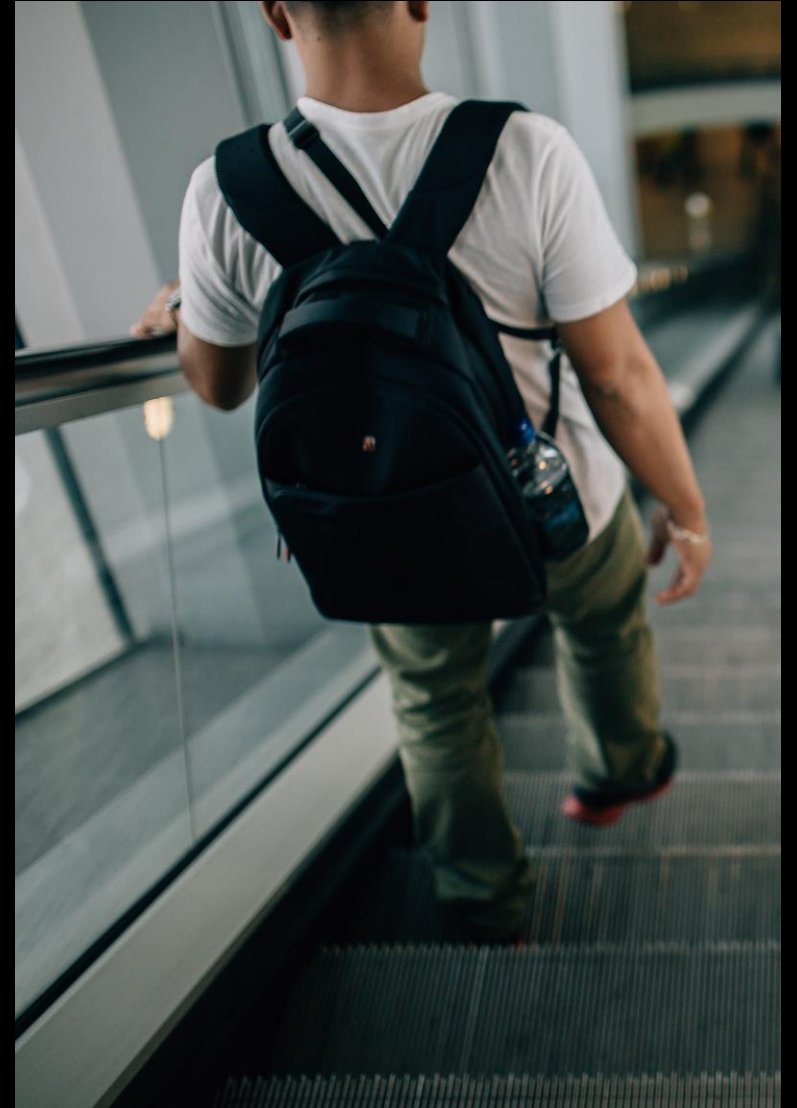
WRITING ACCESSIBILITY

- Write in simple, concise language.
- Use high-contrast color.
- Avoid small or hard-to-read font.
- Check that fonts magnify clearly.
- Use descriptive alt-text.
- Avoid nested tables/graphs.
- Avoid excess adverbs.
(e.g., "very," "really," "extremely," "totally")
- Use bullets and paragraphs to chunk content.
- Use strong headings for organization.



GOOD ALT TEXT

1. Describe the image in sufficient detail.
2. Keep it concise (<125 characters)
3. Use descriptive phrases (see example).
4. Avoid keyword stuffing.
5. Avoid images in place of words.
6. Don't add "image of," "picture of," etc.
7. Don't neglect form buttons (submit, next page, etc.)
8. Describe people when it matters (e.g. emotion, ethnicity, age)
9. "Automatic Alt Text" is not descriptive enough!



young man with backpack
descending an escalator

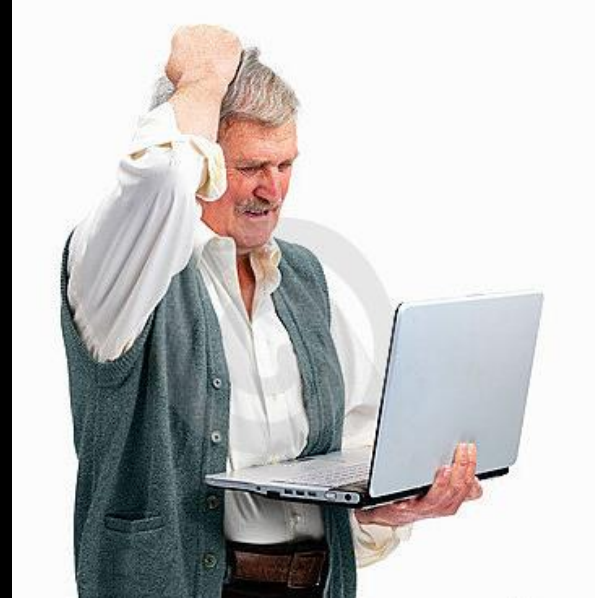
ACTIVITY: WRITING GOOD ALT TEXT (OPEN DISCUSSION)

- What if this alt text said “woman on phone”?
- Does that cover what is shown to the learner?
- Can you think of a *better* alt text for each image?
- Hint: How are their demeanors or emotions different?



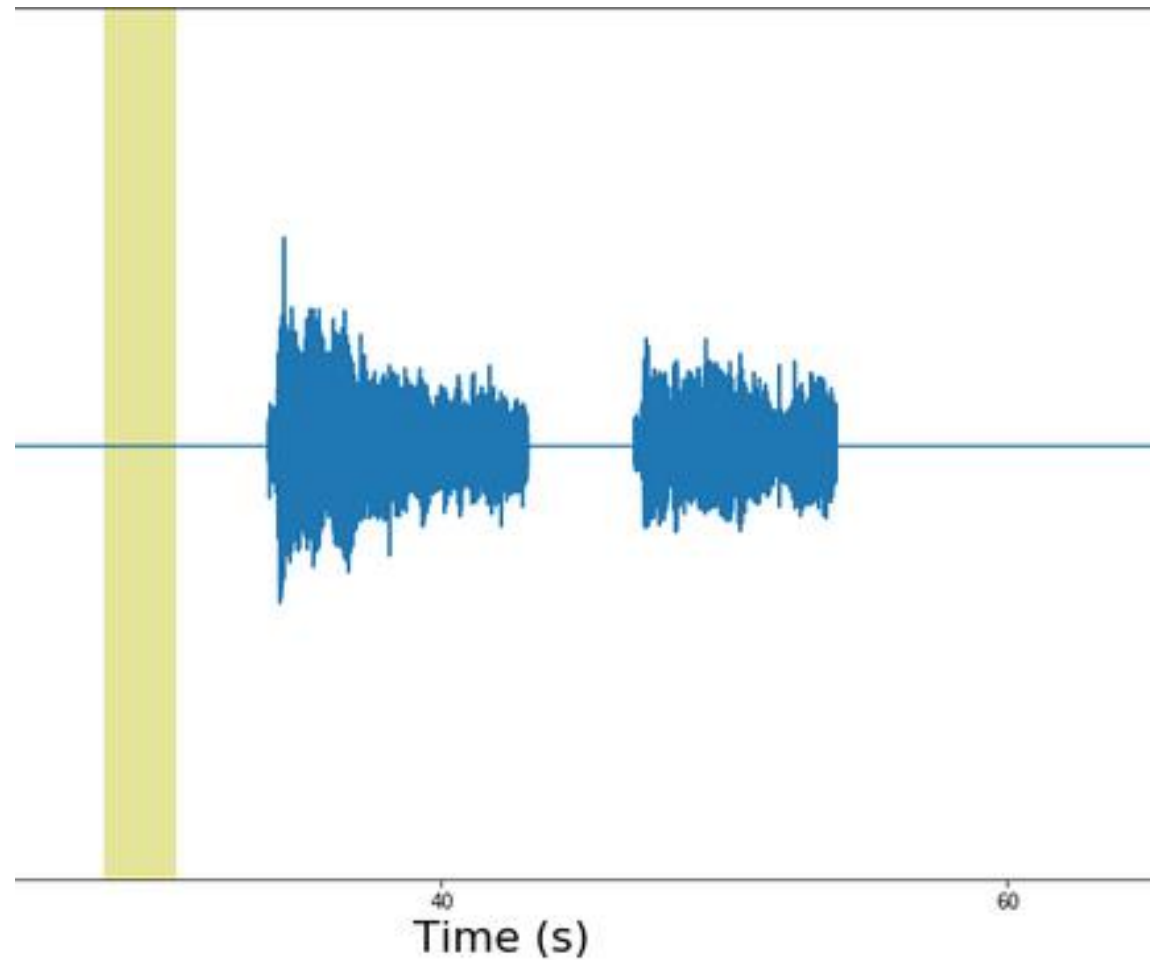
GOOD ALT TEXT CONTINUED:

- Instead of “person using computer”, what alt text would you use for these images?
- Do demographics matter in this instance? If so, how?
- Hint: Don’t forget to consider emotional impact, descriptions, and other visible factors.



AUDIO & VIDEO

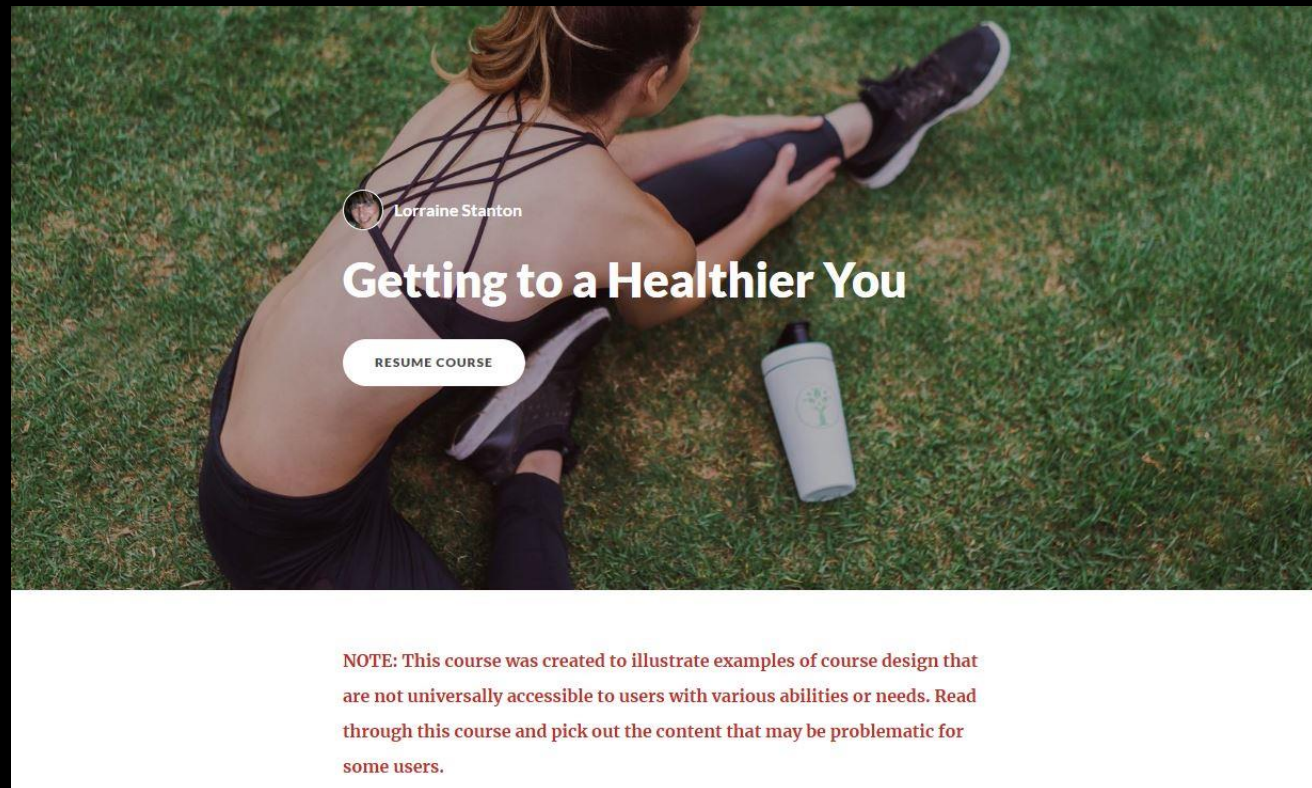
- ☐ Closed captions (cc) should be used for all audio.
- ☐ If no time for captioning, at least provide transcript.
- ☐ Do not auto-start or loop.
- ☐ Allow video to be paused or restarted.
- ☐ Provide access directions for external links.
- ☐ Avoid overuse of high speed animations.
- ☐ Avoid overuse of annoying music or “noise”.
- ☐ Video should be accessible without audio.



ELEARNING COURSE ACTIVITY

Using your [Accessibility Checklist](#):

1. Access the [Healthier You Course mockup](#) (**Note:** you may need to restart the course at the beginning).
2. Go through *all* sections of the course.
3. Identify some accessibility opportunities.
4. We'll come back to discuss!



NOTE: This course was created to illustrate examples of course design that are not universally accessible to users with various abilities or needs. Read through this course and pick out the content that may be problematic for some users.

ACCESSIBILITY RESOURCES:

- [Accessibility and Universal Design – Ohio State](#)
- [How to Design Accessible Articulate Course](#)
- [Inclusive Design for Psychological Well-being](#)
- [Designing Accessible Courses eBook](#)
- [Writing Good Alt Text](#)
- [Color Blind Simulator](#)
- [Hemingway Editor](#)

