

# Designing Accessible Learning Adventures: Dive In!

Ryan Lufkin & Christopher Philips

# Today's Speakers



**Ryan Lufkin**

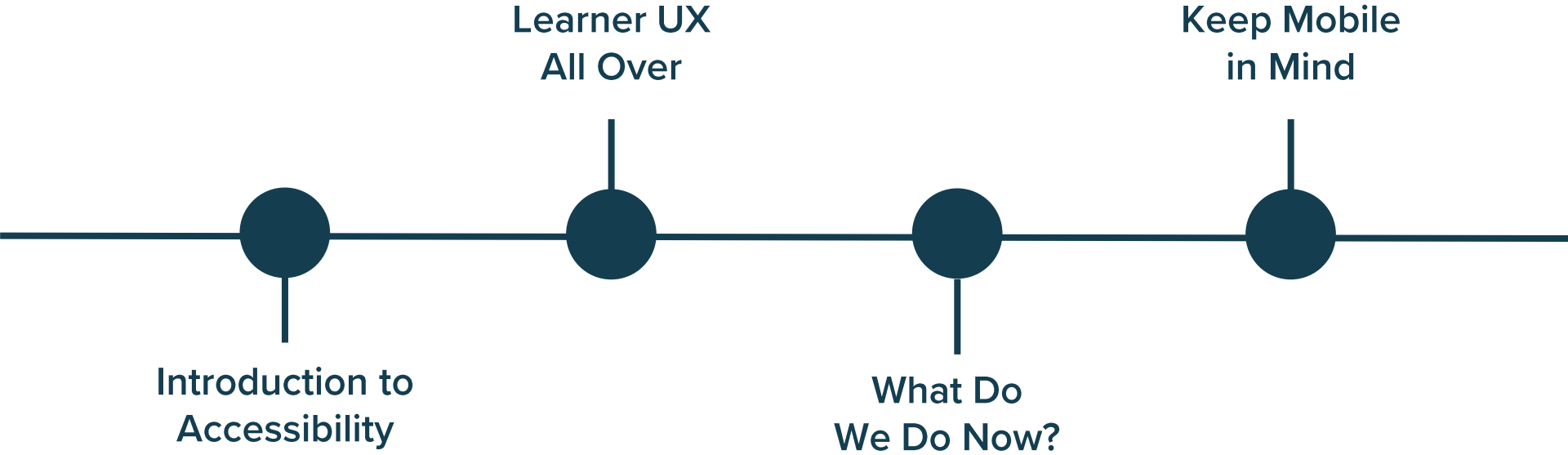
VP, Global Academic Strategy,  
**Instructure**



**Christopher Philips**

Digital Accessibility Officer,  
**Utah State University**

# Today's Agenda



# Introduction to Accessibility

# Web Content Accessibility Guidelines (WCAG) 2.2



U.S. Department of Education



IDEA

Individuals with Disabilities Education Act



WCAG 2.0

# Accessibility

- Legal Requirement
- Compliance
- Fear
- Burden
- Limitations



# Accessibility

- Helpful
- Welcoming
- Inclusive
- Universal
- Good User Experience



# Curb Cuts

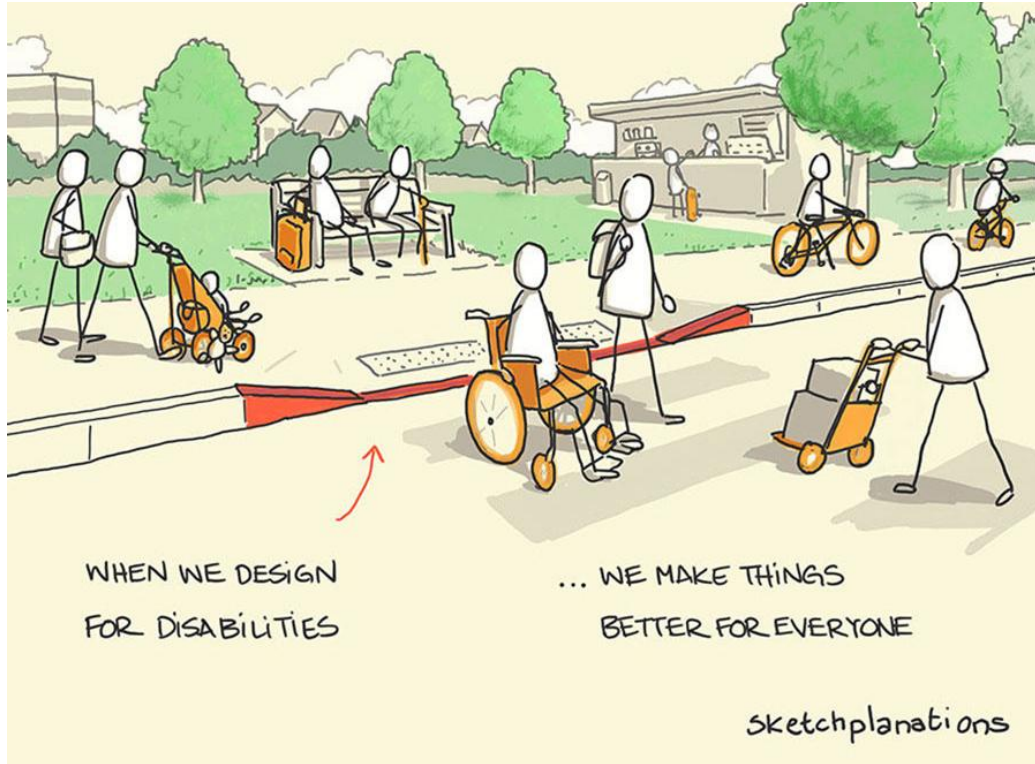




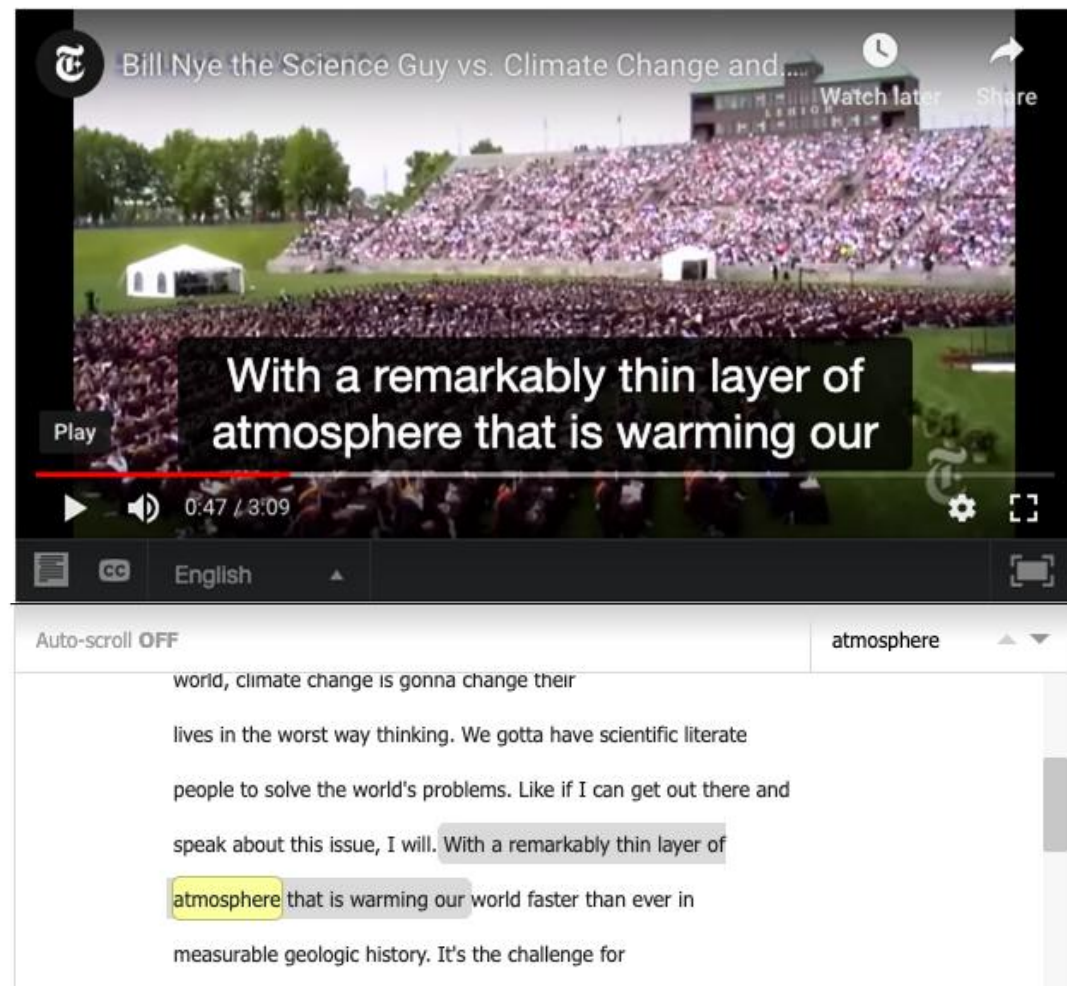
# Curb Cut Effect



# Curb Cut Effect



# Video Captions



The image shows a YouTube video player interface. The video title is "Bill Nye the Science Guy vs. Climate Change and...". The video content shows a large crowd of people at an outdoor event, with a white tent visible in the foreground. The video player includes a play button, a progress bar at 0:47 / 3:09, and a volume icon. The video player also has a settings menu and a share icon. Below the video player, the video player controls are visible, including the "English" language selection and the "Auto-scroll OFF" setting. The video player also has a search bar with the word "atmosphere" entered. The video player also has a "Watch later" button and a "Share" button.

Bill Nye the Science Guy vs. Climate Change and... Watch later Share

With a remarkably thin layer of atmosphere that is warming our

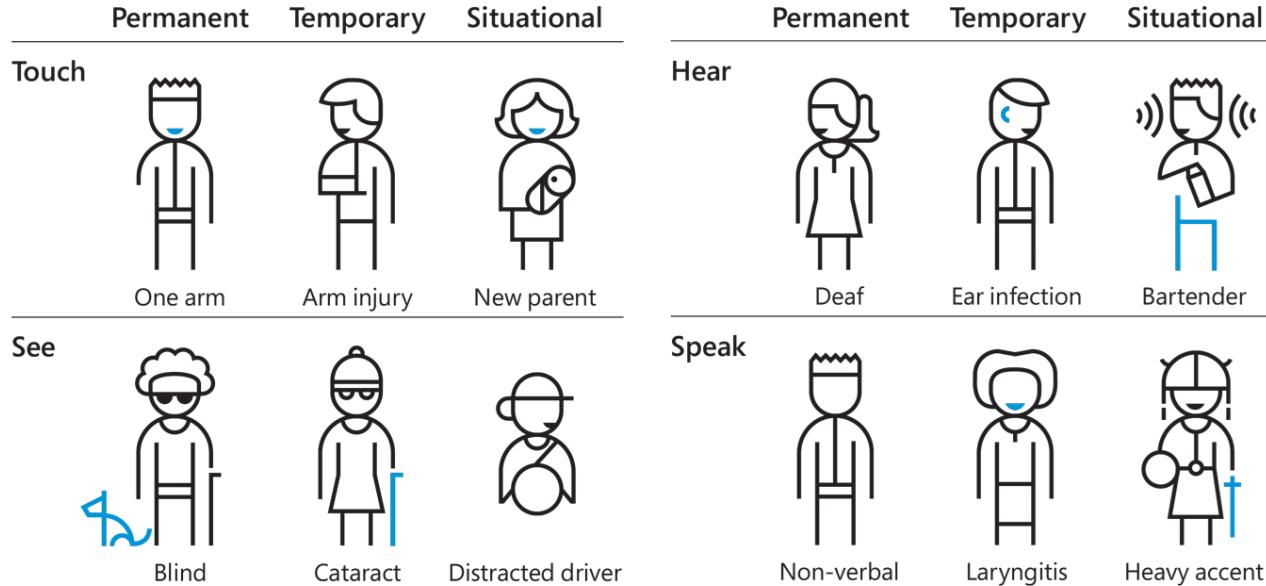
Play 0:47 / 3:09

English

Auto-scroll OFF atmosphere

world, climate change is gonna change their lives in the worst way thinking. We gotta have scientific literate people to solve the world's problems. Like if I can get out there and speak about this issue, I will. With a remarkably thin layer of atmosphere that is warming our world faster than ever in measurable geologic history. It's the challenge for

# Inclusive Design



*This graph is from Microsoft's inclusive design toolkit.*

# Web Content Accessibility Guidelines (WCAG) 2.2

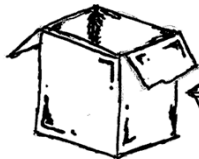


# Learner UX

# What is “UX” Design?

## UX DESIGN



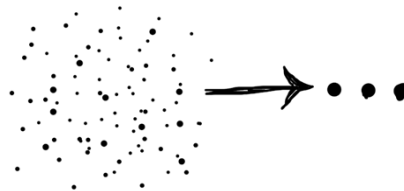


UNBOXING  
THE COURSE

EMBRACE  
ONBOARDING



BE INTENTIONAL  
WITH COPY TEXT

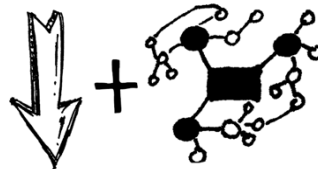


BE SIMPLE



BEGIN WITH  
THE USERS IN MIND

# WHAT CAN UX DESIGN TEACH US ABOUT COURSE DESIGN?



BE LINEAR  
AND CONNECTIVE



CREATE MULTIMEDIA  
INSTRUCTIONS



BE CONSISTENT



SKETCH-NOTE BY  
JOHN SPENCER

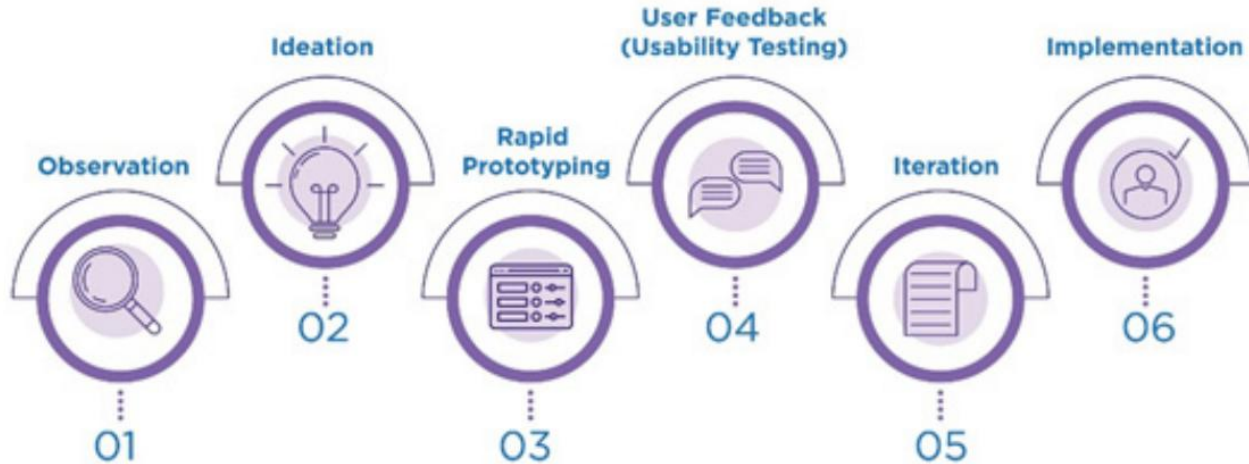


SOLICIT FREQUENT FEEDBACK

SpencerAuthor.com

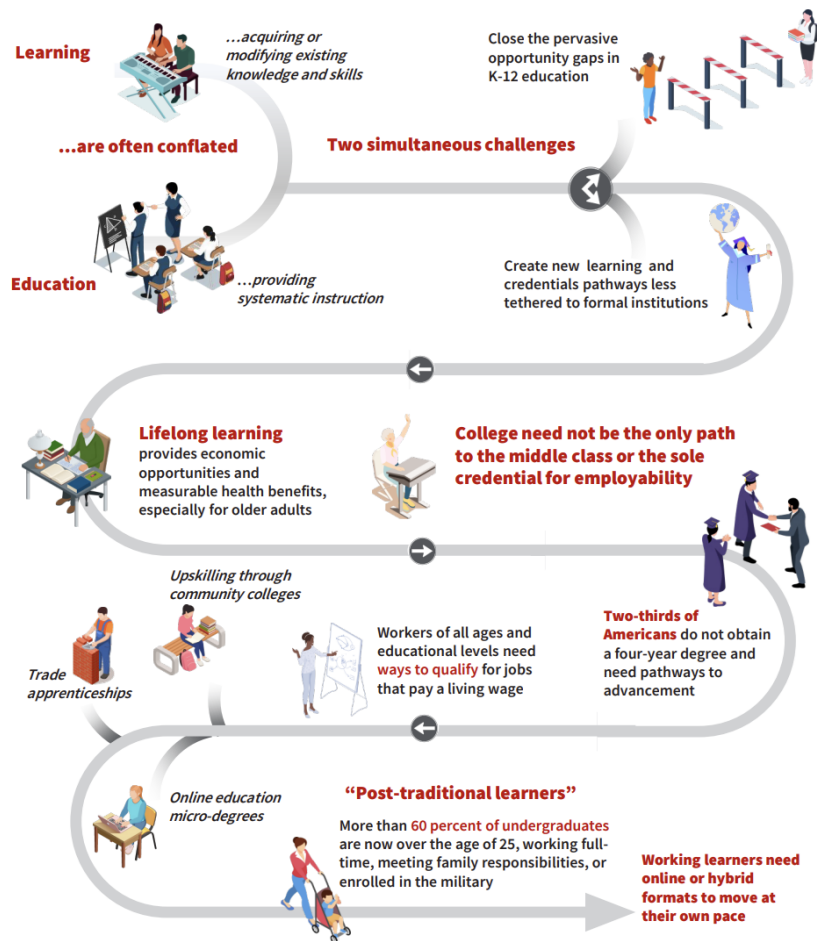


# Human-centered Design

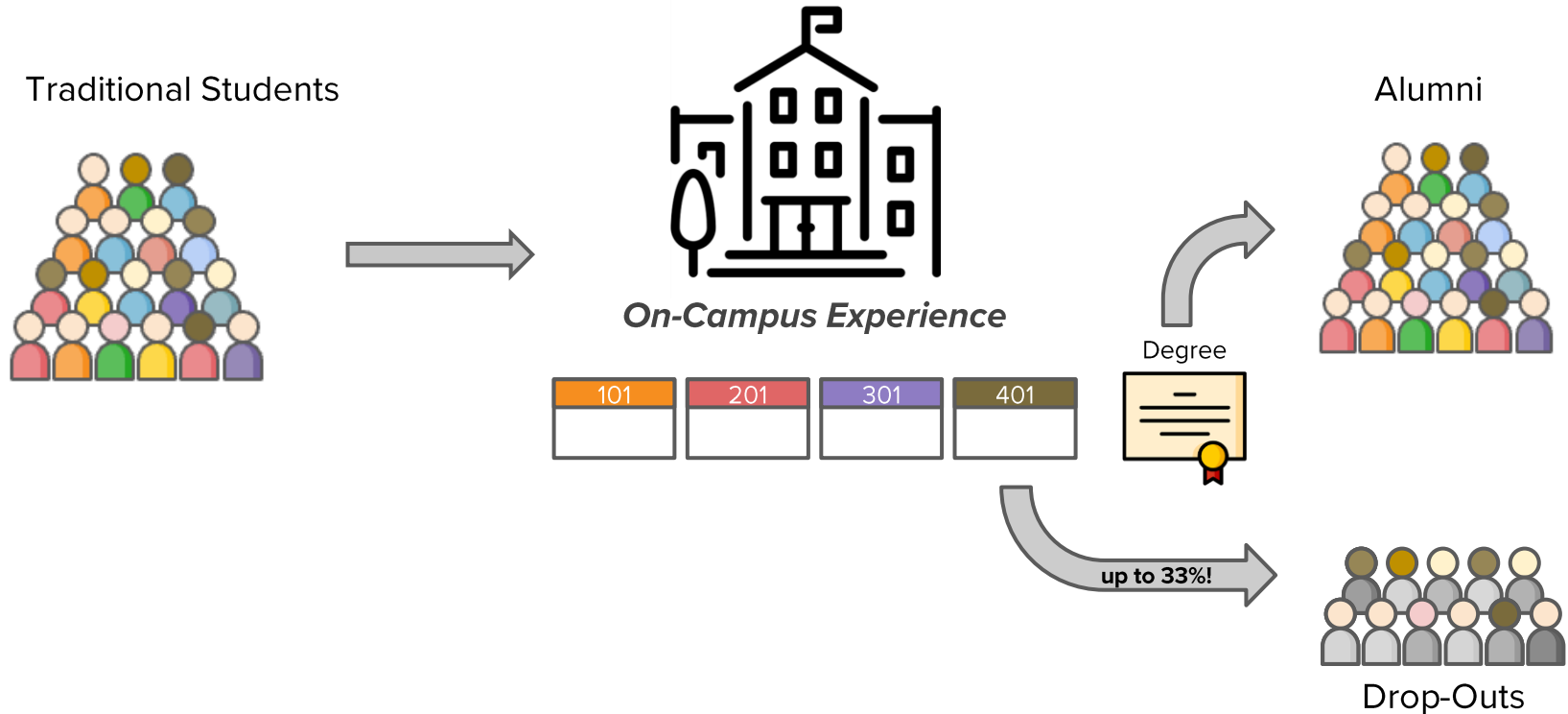


# Lifelong Learning

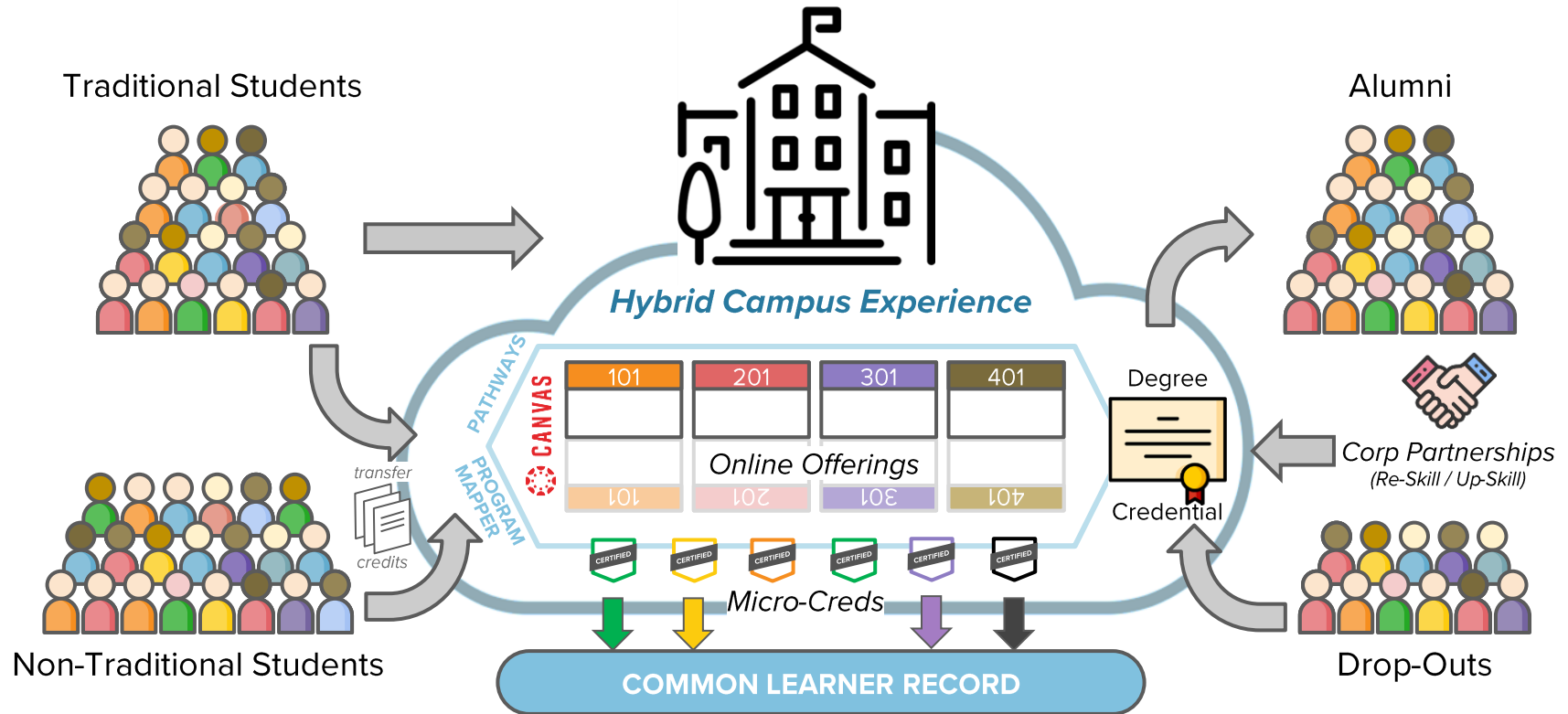
The 100-year life is here. We're not ready.



# The Traditional Student Experience



# The Lifelong Learning Experience



# So what to do now?

Accessibility Basics

# Content Headings

Food  
Vegetable  
Greens  
Cabbage  
Spinach  
Roots  
Carrots  
Turnips  
Fruit  
Apple  
Golden Delicious  
Pink Lady  
Berry  
Blackberry  
Raspberry

## Food

### Vegetable

#### Greens

Cabbage  
Spinach

#### Roots

Carrots  
Turnips

### Fruit

#### Apple

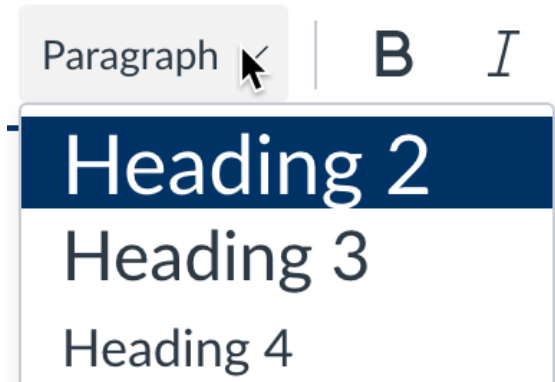
Golden Delicious  
Pink Lady

#### Berry

Blackberry  
Raspberry

# Headings

Canvas



Styles in Microsoft Word



# Color Contrast

**Bad  
Color  
Contrast**

**Good  
Color  
Contrast**



## Accessible, Usable Links

- Click Here
- Read More
- More Information
- Submit Assignment
- Review Instructions
- Discuss here

# Simplify Course Navigation

Home

Syllabus

Discussions

Grades

People

Home

My Media

Media Gallery

Syllabus

People

Modules

Grades

Assignments

Quizzes

Quiz Extensions

TidyUP

Ally Course

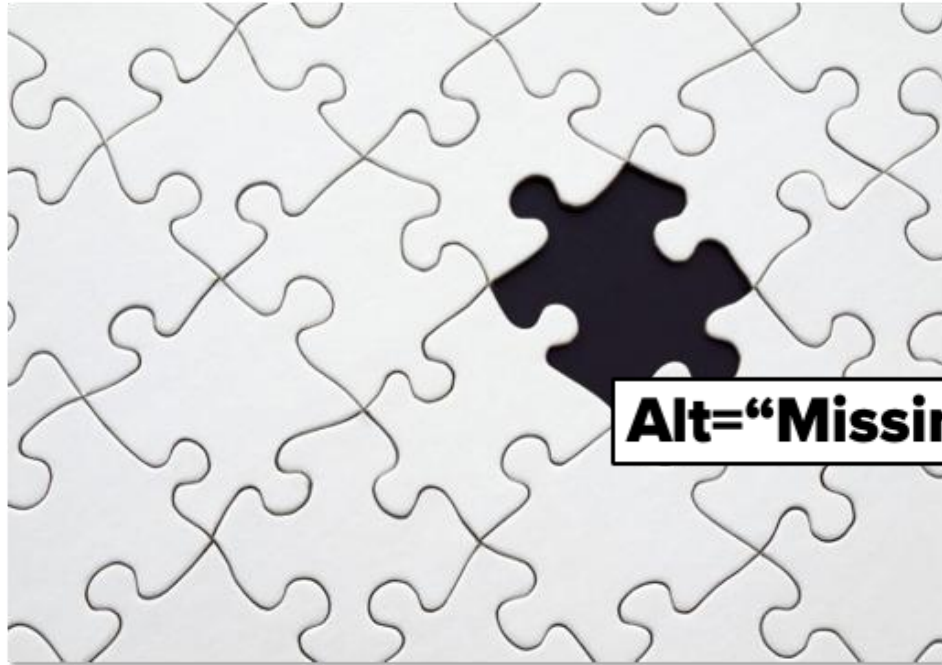
Accessibility Report

Submit Grades to  
Banner

Course Report

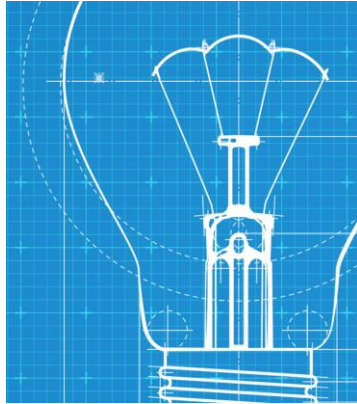
Course Rubric

# Alternative Text for Images

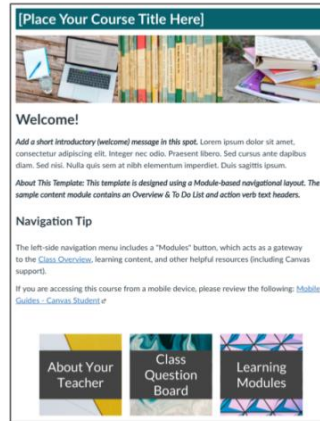


**Alt="Missing puzzle piece"**

# Tools for Consistency



**Blueprint  
Courses**



**Course  
Templates**



**Canvas  
Commons**

# RCE Accessibility Checker

The screenshot displays the RCE Accessibility Checker interface. On the left, a document editor shows a menu bar (Edit, View, Insert, Format, Tools, Table) and a toolbar with various formatting options. The main content area contains the text "Write an essay describing the signing of the Declaration of Independence and adopted by the Continental Congress in 1776." Below this text is a small image of the signing of the Declaration of Independence. To the right of the image is a table with the following structure:

United States	Great Britain		
Row 1	Row 3		
Row 2			

On the right side, the Accessibility Checker panel is open, showing a close button (X) and the title "Accessibility Checker". Below the title, it states "No accessibility issues were detected." and features an illustration of three balloons (pink, blue, orange) with confetti. At the bottom of the panel are "Prev", "Next", and "Apply" buttons.

# The Impact of Mobile in Learning Delivery

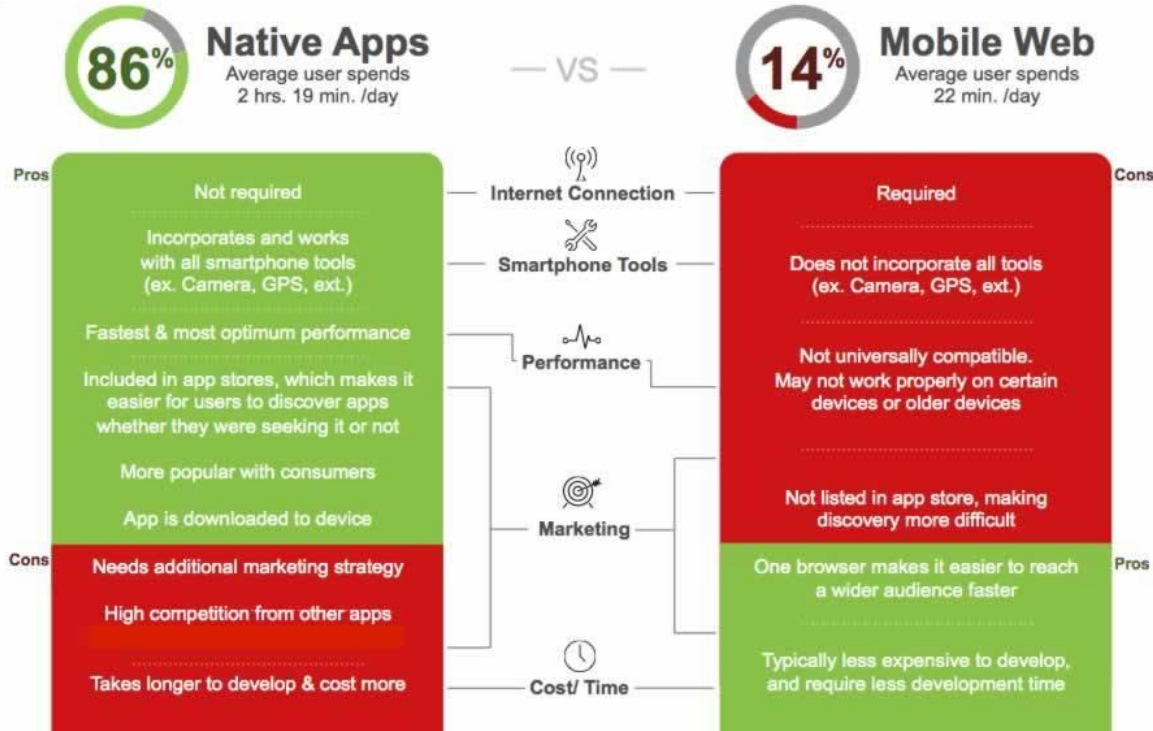
# Smartphone Ownership in the US by Age



- On average, most children receive their first smartphone at age 11.
- American adults spend an average of 4.5 hours on their mobile devices each day.
- About 45% of all web traffic in the U.S. originates from smartphones.

[Pew Research](#)

# Accessibility and Mobile



Source



# Recommendations for Mobile Learning

1. Create an engaging native mobile app experience but mirror that in responsive design.
2. Design for a small screen
3. iPhone and Android
4. Consider offline support needs for students with access issues.
5. AI for captioning and translation?
6. Pdfs....





PDF

P



Document

PDF

PDF



# PDF Files and Mobile Learning

Psychological Bulletin  
2011, Vol. 137, No. 4, 378–400

© 2010 American Psychological Association  
1076-898X/11/\$12.00 DOI: 10.1037/a0019701

## Distress Tolerance and Psychopathological Symptoms and Disorders: A Review of the Empirical Literature Among Adults

Teresa M. Leyro and Michael J. Zvolensky

Amit Bernstein

We review theory and empirical study of distress tolerance, an emerging risk factor candidate for various forms of psychopathology. Despite the long-standing interest in and promise of work on distress tolerance for understanding adult psychopathology, there has not been a comprehensive review of the recent empirical literature focused on the construct. As a result, a comprehensive synthesis of theoretical and empirical scholarship on distress tolerance, including integration of extant research on the relations between distress tolerance and psychopathology, is lacking. Inspection of the scientific literature indicates that there are a number of promising ways to conceptualize and measure distress tolerance, as well as documented relations between distress tolerance factors and psychopathological symptoms and disorders. Although promising, there also is notable conceptual and operational heterogeneity across the distress tolerance literature. Moreover, a number of basic questions remain unanswered regarding the associations between distress tolerance and other risk and protective factors and processes, as well as its putative role(s) in vulnerability to and resilience to psychopathology. Thus, the current article provides an integrative review of past and contemporary theory and research and proposes key areas for future empirical study of this construct.

**Keywords:** distress tolerance, psychopathology, negative mood, mechanism, regulation

Distress tolerance has been a focus of interest for clinical scientists and practitioners for a variety of reasons (Zvolensky, Bernstein, & Vujanovic, in press). Principally, the distress tolerance construct has been purported to contribute to the development and maintenance of several forms of psychopathology (e.g., substance use, anxiety, mood, and personality disorders). Inspection of research over the past few decades indicates that researchers and clinicians have, in fact, had a long-standing interest in elucidating the role of distress tolerance in a wide range of aversive internal states (e.g., negative emotion) and bodily sensations.

For example, research by Leitch, Kessler, Streng, & Zvolensky (2005), Chorney, Rosen & Cummings (1982), Otto, Pincus, & Fichtmann (2005). In addition, Lushenko's (1993) seminal theoretical work on borderline personality disorder has posited that one of the central mechanisms underlying this personality disorder is a persistent unwillingness or inability to tolerate emotional distress that involves and elicits pain. In fact, had a long-standing interest in elucidating the role of distress tolerance in the context of psychological disorders has been paralleled by the growth and dissemination of psychosocial interventions designed to promote tolerance for distress originating from internal and external sources (e.g., physical discomfort, intravital life events; Barlow, Allen, & Choate, 2004; Hayes, Stroschil, & Wilson, 1996; Litchner, 1993; Orlitzky & Roemer, 2005). Many of these psychosocial treatments have begun to show promising outcomes for historically difficult-to-treat populations (e.g., Kaba-Zinn, Lipworth, Berrery, & Sellers, 1986; Orlitzky, Roemer, & Barlow, 2003; Ramel, Goldin, Carmaria, & McQuaid, 2004; Roemer & Orlitzky, 2002; Williams, Truax, Segal, & Stroschil, 2000). For example, Graz and Gunderson's (2006) acceptance-based emotion regulation group therapy for borderline personality disorder therapeutically targets distress tolerance by emphasizing the benefits of emotional willingness. In fact, many behavioral therapies target distress tolerance directly or indirectly, such as acceptance and commitment therapy (Hayes et al., 1999), functional analytic psychotherapy (Kobak and Tsai, 1993), integrative behavioral couples therapy (Christensen, Jacobson, & Babcock, 1995), and mindfulness based cognitive therapy (Segal, Williams, & Teasdale, 2002).

Despite broad interest in the role of distress tolerance in the onset and maintenance of psychopathology and its treatment, there has not been a comprehensive review of the empirical literature focused on the construct. As a result, theoretical and empirical

Teresa M. Leyro and Michael J. Zvolensky, Department of Psychology, University of Vermont; Amit Bernstein, International Research Collaborative on Anxiety, University of Haifa, Haifa, Israel.

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Teresa M. Leyro and Michael J. Zvolensky  
University of Vermont

Amit Bernstein  
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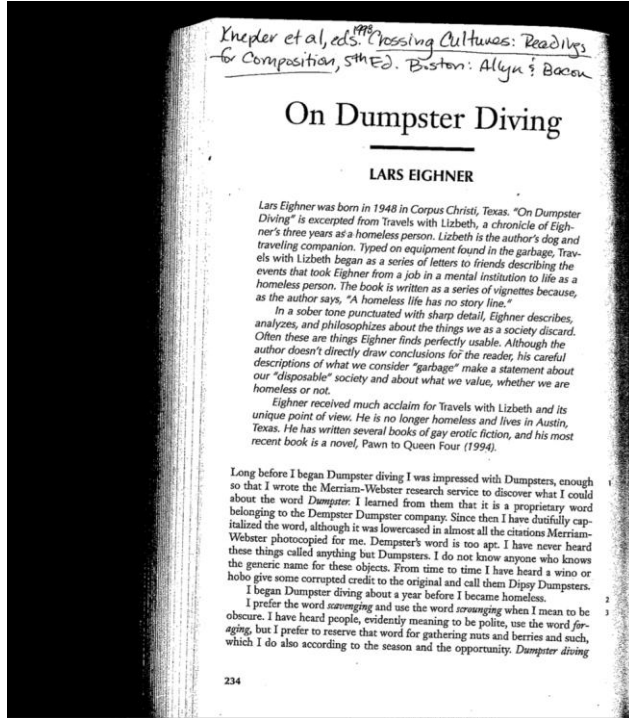
1-2 of 25 377

Dashboard Calendar To Do Notifications Inbox

# Use Files in their Original Format



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Search 9:33 AM

Back Page Details  
Christopher Phillips' Sandbox

## On Dumpster Diving

Lars Eighner

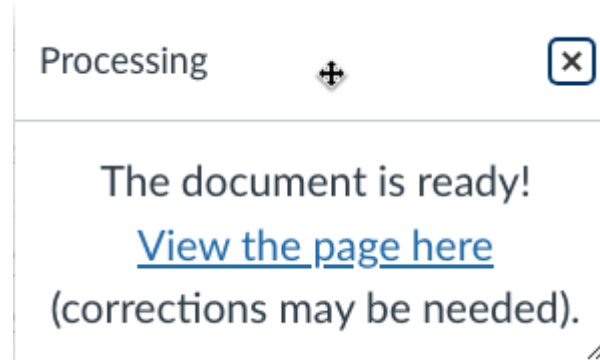
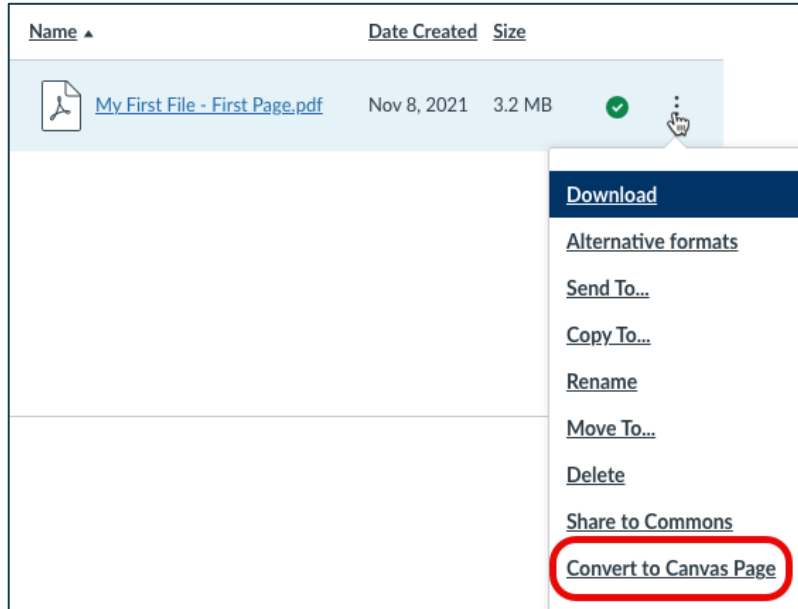
Enger, Lars. 1998. "On Dumpster Diving," in *Crossing Cultures: Readings for Composition*, 5th Edition, Knepler et al, eds. Boston: Allyn & Bacon.. [Download PDF.](#)

Long before I began Dumpster diving I was impressed with Dumpsters, enough so that I wrote the Merriam-Webster research service to discover what I could about the word "Dumpster." I learned from them that "Dumpster" is a proprietary word belonging to the Dempsey Dumpster company.

Since then I have dutifully capitalized the word although it was lowercased in almost all of the citations Merriam-Webster photocopied for me. Dempsey's word is too apt. I have never heard these things called anything but Dumpsters. I do not know anyone who knows the generic name for these objects. From time

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# Accessibility is a Journey!



# Questions?

<https://bit.ly/atd-accessibility>