Universal Design for Learning

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A Bit About Me…

- Background in law, librarianship, and education
- Classwork in accessibility and Universal Design as part of my M.Ed and experience with disability services in higher education
- Teach about accessibility and Universal Design in presentations, workshops, and through Library Juice Academy

What is Accessibility?

What is Universal Design?

"Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design."

- Ronald L. Mace

Universal Design

Accessibility

Accommodation

Who benefits?

- Individuals with Disabilities
  - About 15% of the population worldwide
  - More than 10% of postsecondary students
- Older Adults
- Non-native English Speakers
- Distracted, Anxious, or Overwhelmed Individuals

Who benefits?

Everyone

“Universal Design assumes that the range of human ability is ordinary, not special.”

- Elaine Ostroff, 2001

What is Universal Design?

What is Universal Design for Learning?

"A framework for designing educational environments and products…that are accessible and optimal for all learners."

- Prof. David Rose, 2017

Universal Design for Learning Guidelines

Provide multiple means of...

Engagement

Purposeful, motivated learners

Stimulate interest and motivation for learning

Representation

Resourceful, knowledgeable learners

Present information and content in different ways

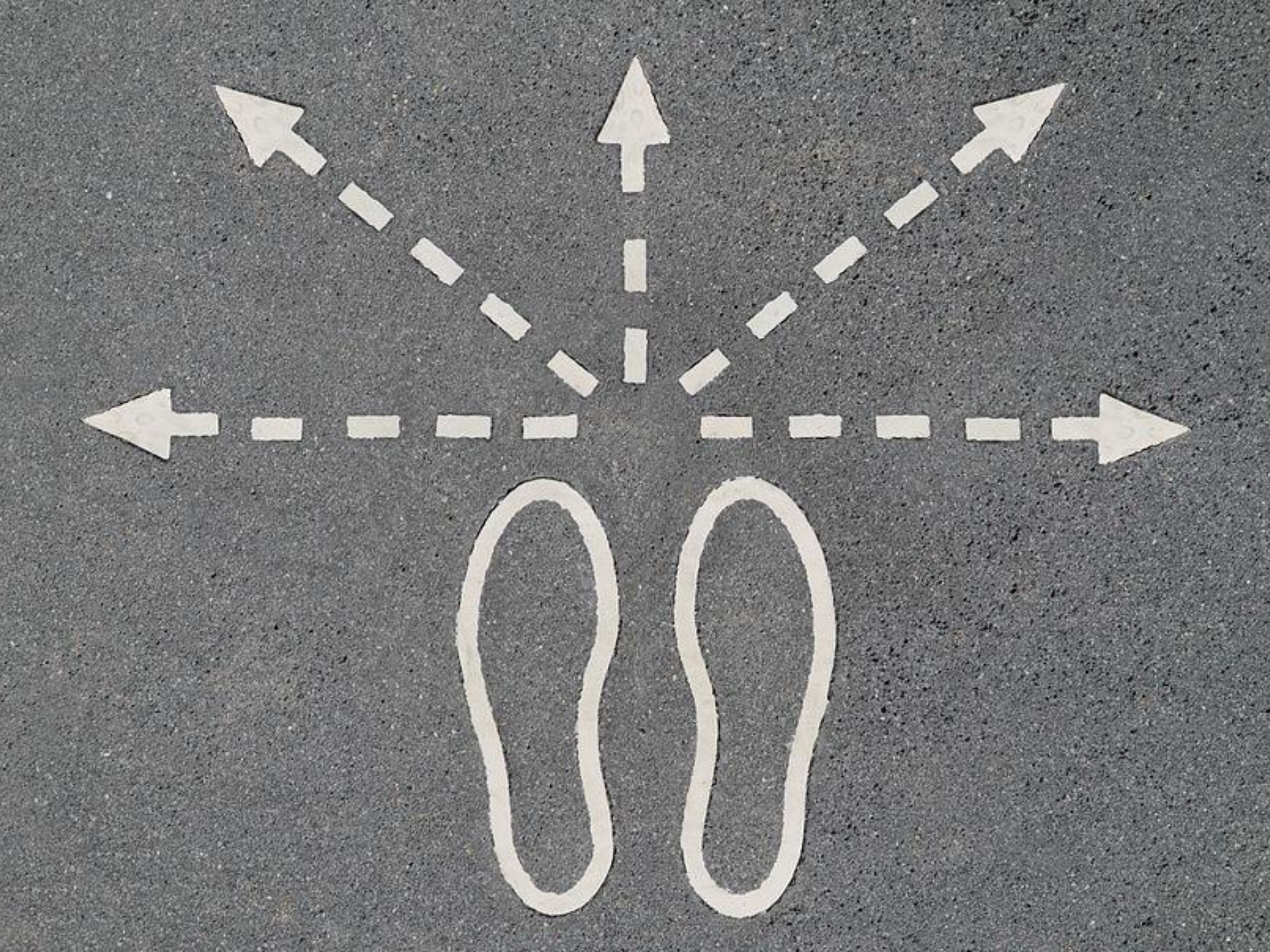
Action & Expression

Strategic, goal-directed learners

Differentiate the ways that studetns can express what they know

Multiple Means of Engagement

- Offer multiple ways to recruit interest
  - Allow for choice
  - Authentically explain the relevance and value
  - Offer a distraction-free, non-threatening space



Multiple Means of Engagement

- Offer multiple ways to recruit interest
- Support sustained effort and persistence
  - Keep the goals and objectives front and center
  - Offer varying demands and challenges
  - Integrate collaboration with peers
  - Focus feedback on mastery, not performance

YOU

Multiple Means of Engagement

- Offer multiple ways to recruit interest
- Support sustained effort and persistence
- Encourage self-regulation
  - Allow for personalized goals and motivation
  - Scaffold personal coping strategies
  - Encourage the development of self-assessment and reflection

Support Student Growth

Multiple Means of Representation

- Provide alternatives for perception
  - Audio
  - Video/Live Demo
  - Offer Customization

Multiple Means of Representation

- Provide alternatives for perception
- Provide alternatives for language, symbols, and mathematical expressions
  - Clarify (terms, structure, syntax)
  - Translate (language, symbols)
  - Illustrate with multimedia

Let's look at the file.

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```

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 3 <html>
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 5 <head>
 6
 7
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 9 b-app6.us.archive.org";archive_analytics.values.server_ms=105;</script>
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13 <title>Piper's Diary</title>
14 <meta name="description"
15 content="Come visit our shih tzu, Piper.  He has his very own photo gall
15 ary, monthly diary, newsletter, and dog site award.  He also maintains d
15 og book reviews and quotations.  Come check him out!">
16 <meta name="keywords"
17 content="shih tzu, dog, pet, quotations, award, diary, advice, book, rev
17 iew, piper">
18 <style TYPE="text/css" TITLE="Basic Fonts">
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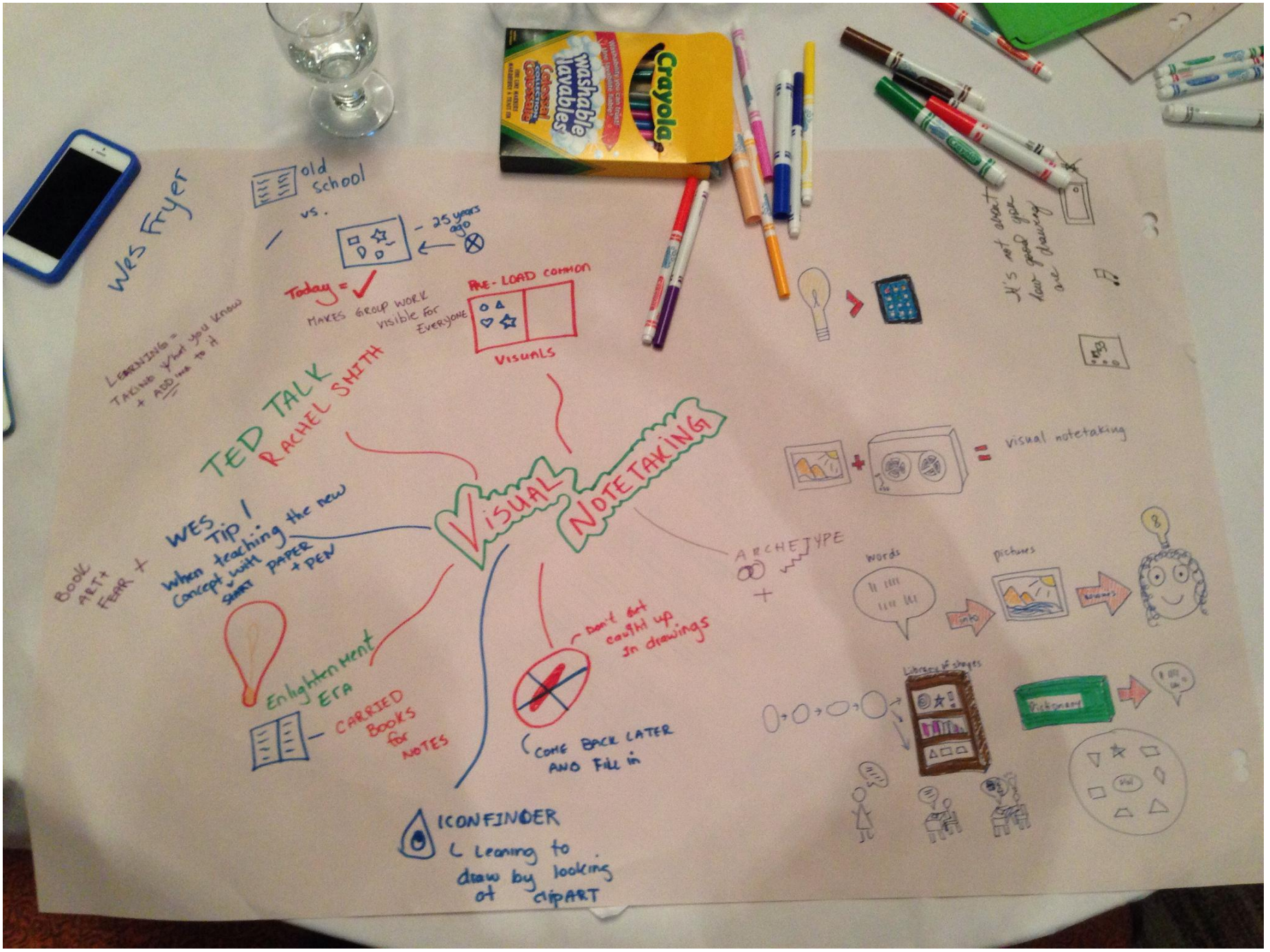
Multiple Means of Representation

- Provide alternatives for perception
- Provide alternatives for language, symbols, and mathematical expressions
- Provide support for comprehension
  - Offer background info
  - Emphasize key ideas and patterns
  - Guide information processing
  - Explain how to transfer knowledge to other areas and generalize it

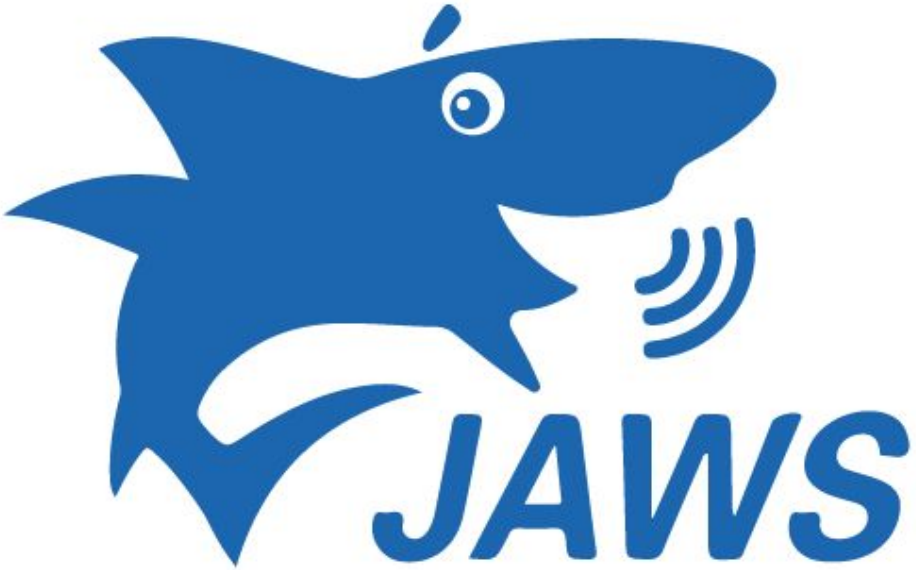

Wes Fryer
old school
vs.
- 25 years ago
Today = ✓
MAKES GROUP WORK visible for EVERYONE
PRE-LOAD common
Visuals
TED TALK
RACHEL SMITH
VISUAL NOTETAKING
WES Tip!
When teaching the new concept with SMART PAPER + PEN
Book ART + FEAR +
Enlightenment ERA
CARRIED Books for NOTES
Don't get caught up in drawings
COME BACK LATER AND FILL in
ICONFINDER
Leaning to draw by looking at clipART
ARCHETYPE
Words
pictures
Library of shapes
Pictionary
visual notetaking

Multiple Means of Action & Expression

- Incorporate physical activities
  - Vary navigation methods (through both space and information)
  - Support use of tools (including assistive devices)

Kurzweil

EDUCATIONAL SYSTEMS



Multiple Means of Action & Expression

- Incorporate physical activities
- Offer alternative means of communication
  - Allow use of multimedia for expressions
  - Use tools to support construction of responses
  - Offer many options to practice and perform

Multiple Means of Action & Expression

- Incorporate physical activities
- Offer alternative means of communication
- Support development of executive functions
  - Guide personal goal-setting
  - Assist with planning and strategizing
  - Support information management
  - Support internal and external progress monitoring

Jargon Busting

Overview

Teaching: 15 min
Exercises: 30 min

Questions

- What terms, phrases, or ideas around code or software development have you come across and perhaps feel you should know better?

Objectives

- Explain terms, phrases, and concepts associated with software development in libraries
- Compare knowledge of these terms, phrases, and concepts
- Differentiate between these terms, phrases, and concepts

Jargon Busting

This exercise is an opportunity to begin to ask questions and to get a firmer grasp on the concepts around data, code or software development in libraries.

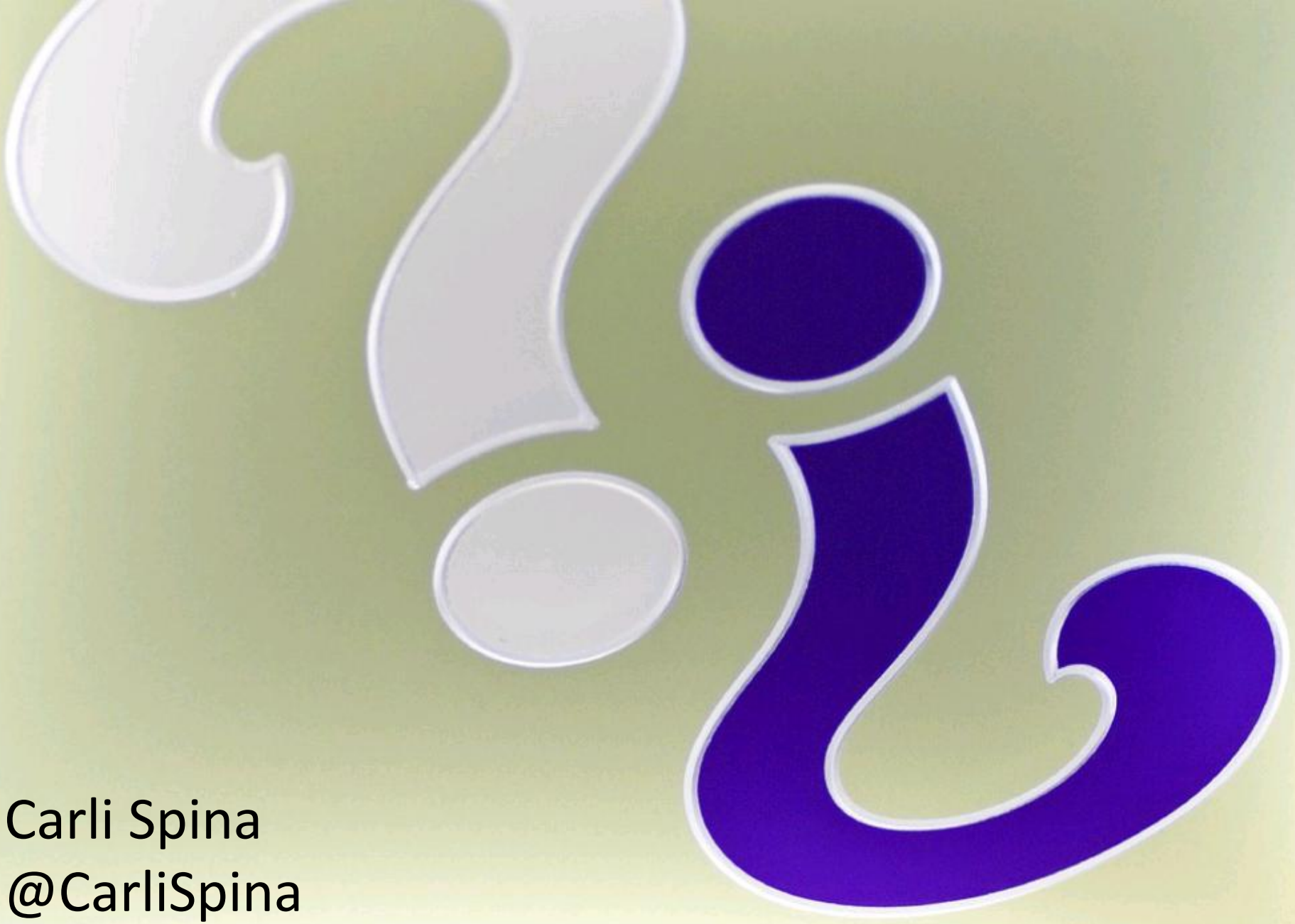
1. Pair with a neighbor and decide who will take notes.
2. Talk for 3 minutes (your instructor will be timing you!) on any terms, phrases, or ideas around code or software development in libraries that you've come across and perhaps feel you should know better.
3. Next, get into groups of 4-6.
4. Make a list of all the problematic terms, phrases, and ideas each pair came up with. Retain duplicates.
5. Identify common words as a starting point - spend 10 minutes working together to try to explain what the terms, phrases, or ideas on your list mean. Note: use both each other and the internet as a resource.
6. Identify the terms your groups resolves as well as those you are still struggling with.
7. Each group then reports back on one issue resolved by their group and one issue not resolved by their group.
8. The instructor will collate these on a whiteboard and facilitate a discussion about what we will cover today and where you can go for help on those things we won't cover. Any jargon or terms that will not be covered specifically are good notes.

Key Points

- It helps to share what you know and don't know about software development and data science jargon

Examples of UDL Principles in Action:

- Explaining complex terminology
- Offering an opportunity to select terms of personal interest
- Supporting collaboration & choice of roles
- Scaffolding coping techniques by introducing how to search for answers
- Highlighting key points



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