Welcome to #WCETWebcast

March 16, 2017

- *The webcast will begin shortly.*

- *There is no audio being broadcast at this time.*

- *An archive of this webcast will be available on the WCET website next week.*

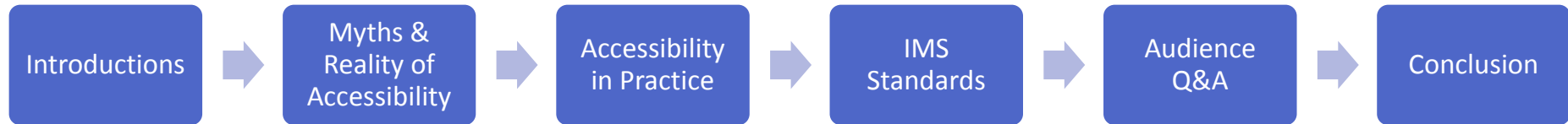# Enabling Accessibility in Learning Technology

March 16

Welcome!

- *Use the question box for questions and information exchange.*

- *Archive, PowerPoint, and Resources available next week.*

- *PowerPoint can be downloaded in the handouts pane.*

- *Follow the Twitter feed: #WCETwebcast.*

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Overview

Introductions → Myths & Reality of Accessibility → Accessibility in Practice → IMS Standards → Audience Q&A → Conclusion

Questions from the Audience

- *If you have a question during the presentation, please add your questions to the question box.*

- *We will monitor the question box and have time for Q&A in the last part of the webcast.*
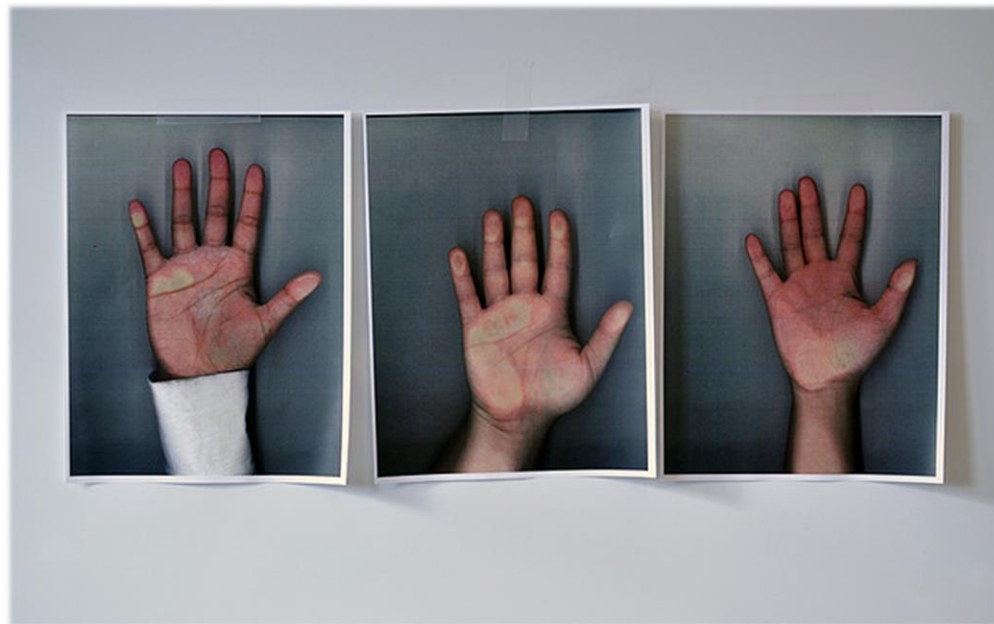
Moderator

Kara Monroe

- Vice President for Academic Innovation and Support
- Ivy Tech Community College

Presenters

Jane Berliss-Vincent

- Assistive Technology Manager
- University of Michigan

Markus Gylling

- Solutions Architect
- IMS Global Learning Consortium

Brian Richwine

- Manager UITS Assistive Technology and Accessibility Centers
- Indiana University

Philip Voorhees

- Technology Accessibility Coordinator
- University of Nevada- Las Vegas

Speaker bios

- **Jane Berliss-Vincent** has been involved in technology access for over 30 years as a direct service provider, researcher, author, and web accessibility tester. Her current role is Assistive Technology Manager for the University of Michigan.

- **Markus Gylling** is a solutions architect with IMS Global Learning Consortium and oversees IMS Global's European operations. Prior to his work with IMS Global, he worked as CTO of the International Digital Publishing Forum (IDPF) and as CTO of the DAISY Consortium. He is engaged in the development of global scale standards, tools and educational efforts for the realization of inclusive and accessible e-publishing and e-reading. Markus lives and works in Stockholm, Sweden.

- **Brian Richwine** manages the Indiana University Assistive Technology and Accessibility Centers (ATAC). The ATAC's main focus is providing alternate media and assistive technology support to students with disabilities.

- **Philip Voorhees** has served as an assistive technology/accessibility specialist since 1998 and is currently the University of Nevada Las Vegas (UNLV) technology accessibility coordinator providing program oversight, training and technical assistance to ensure the accessibility of existing and future UNLV Information and Communication Technology (ICT).

Jane Berliss-Vincent – Myths and Reality of Accessibility Part I

- Assistive Technology Manager
- University of Michigan

Agenda

- Accessibility exists in a vacuum: Myth or Reality?
- There are no good accessibility policy models: Myth or Reality?
- The minimum legal standard equals accessibility: Myth or Reality?

The Big Myth:

- Accessibility exists in a vacuum
  - Assumed to be only for a small population of unlikely users
  - Assumed to always be complicated
- Therefore: often implemented as an afterthought, if at all

The Big Reality:

- Accessible design usually has broad benefits
  - Example 1: Automatic reflow
  - Example 2: Captioning

Myth #2:

- There are no good accessibility policy models for postsecondary institutions

Reality #2:

- Several good postsecondary policies exist, usually as a result of settlements.
  - University of Montana's policy is frequently cited
  - Others are listed in the Vendor Guide to Web Accessibility (ITAG)

Myth #3:

- Accessibility can be fully accomplished if policies address the minimum legal standard
  - Federal: Section 508 of the 1973 Rehabilitation Act
  - International: WCAG 2.0 Level AA

Reality #3a:

- Legal requirements are always evolving
  - 508 refresh
  - Attempts to broaden WCAG

Reality #3b and #3c:

- Legal requirements are not always clear
  - Example: Text description of images
- Legal requirements don't always communicate best practices
  - Example: Use of ARIA markup language

Accessibility in Practice

Brian Richwine

- Manager UITS Assistive Technology and Accessibility Centers
- Indiana University

Philip Voorhees

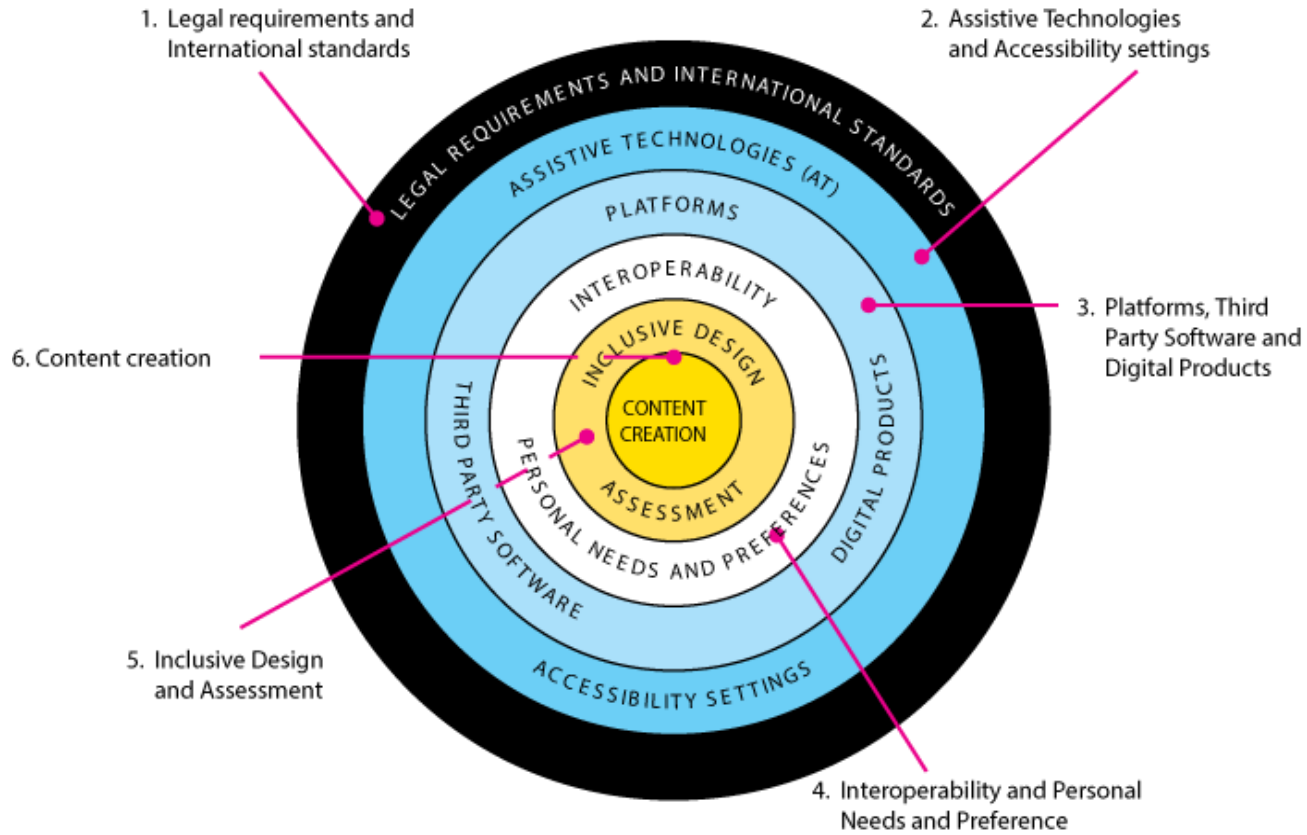- Technology Accessibility Coordinator
- University of Nevada- Las Vegas

Markus Gylling – IMS Global Learning standards

- Solutions Architect
- IMS Global Learning Consortium

App Note: Enhancing Accessibility through IMS Global Standards

IMS Global AccessForAll®

- What is personalization?

  – One size does not fit all

  – Accessibility becomes a preference

  – Does your video support closed captioning – In my language?

  – Do you have a text equivalent for that complex visualization?

  – May I have it in high contrast and with large fonts?

- **IMS Access for All** (AfA),matching of any student's needs with digital resources under a variety of usage scenarios, including mobile devices

http://www.imsglobal.org/accessibility/
https://www.iso.org/standard/43603.html

Slide from: Access for All Working Group

IMS Global Caliper® Analytics

- Enables the collection of rich contextual data about learning interactions
- … from multiple learning environments,
- … using standardized vocabularies.

- Learning analytics can be used to collect information that helps
  - **identify** individuals in need of assistance/assistive technologies
  - **measure impact** of provided assistance/assistive technologies

https://www.imsglobal.org/caliper

Currently in development: aQTI

- Bring together Question and Test Interoperability® (QTI®) and APIP
- Align with W3C Accessibility and Web standards (WCAG and HTML5)
- Support end-to-end accessibility
- Add presentation information for consistent rendering
- Improve interoperability with other IMS Global specifications: Learning Tools Interoperability® (LTI®), Caliper Analytics® and AccessForAll

https://www.imsglobal.org/activity/qtiapip

Recording of recent webinar: https://www.imsglobal.org/actionable-e-assessments-webinar-february-2017

On the problem of course materials

- Since 2014 IMS Global is collaborating with IDPF and W3C on a standard for accessible e-textbooks
- Based on EPUB, the international standard for e-books based on the Open Web Platform, **EPUB for Education** provides integration with IMS Global standards such as LTI and defines a solid baseline for accessible structure and formatting
- In use today by e.g. Pearson, HMH, Macmillan and Ascend Learning

http://www.idpf.org/epub/profiles/edu/spec/

Can we measure…

Can we objectively measure the accessibility of a given e-textbook using existing standards such as WCAG, and provide a human and machine readable report of the result of the measurement?

Yes we can.

EPUB 3.1 Accessibility Specification

- Requires accessibility conformance in the EPUB publication
- Builds on WCAG 2.0 with some additional publishing-specific items
- In the USA WCAG 2.0 "AA" is generally recommended
- "Conforms To" metadata pointing to "A," "AA," or "AAA"
- Accessibility discovery metadata (accessMode, etc) must be included
- Free, open source software tool under development

Publishers have actively participated in the EPUB Accessibility Spec development and have been updating their production process to support accessibility.

http://www.idpf.org/epub/a11y/accessibility.html

epubtest.org: reading system accessibility

Reading System Evaluations

The following reading systems have been evaluated:

Table view: Basic | Fixed Header | Scrolled   *(The basic view is best for screen readers.)*

Find in table   Enter a name or operating system

#	NAME	AT	ESSENTIALS	VISUAL ADJUSTMENT TESTS	MEDIA OVERLAYS
1	Gyan Reader v 1.7.1 (Android 4.4.2 (KitKat))	Talkback V3.5.2 on Samsung GT-i9300 running Android 4.3	14.8%	40%	Not Tested
2	Readium for Chrome v 2.14.2 (Windows 7)	JAWS v15.0.10026 screen reader	66.7%	100%	61.5%
3	Lektz v 4.8 (Android 4.4)	Talkback, Lektz v4.8.2	70.4%	100%	Not Tested
4	Adobe Digital Editions 4.0.3.110333 v 4.0.3.110333 (Win 7	NVDA v2015.1	77.8%	80%	84.6%

What does this mean?

- Comparable and repeatable tests of content and applications **empowers** both end users and institutions
- **Institutional requirements**, expressed as measurable and verifiable metrics, can be introduced in e.g. purchases and tender processes
- **Users** (given tools and sufficient knowledge) can discover content and apps that directly meet their needs
- **Publishers** are given a concrete threshold to work towards (and beyond)

Program Highlights

- Plenary sessions presented by recognized industry leaders through a series of vibrant 15-minute lightning talks
- HED Summit for Institutions: Leading the Revolution to Support Faculty Innovation & Student Success
- 70+ breakout sessions by institutions sharing experiences and plans creating a plug-and-play edtech ecosystem
- *New* Assistive Technology special session

imsglobal.org/lili2017

Enhancing Accessibility Track Sessions

- Accessibility in Measured Progress Multi-State Alternate Assessment
- How Technology Standards Keep Standardized Testing from Becoming an Oxymoron
- A Deep Dive into EPUB 3.1 and Accessibility
- Impact of the EPUB Standard on Accessible Course Materials
- Using a Project- and Competency-Based Model to Improve Accessibility
- ADA Compliance in Course Design Today and Tomorrow
- Accessibility & e-Assessment: A Holistic Approach

Questions from the Audience
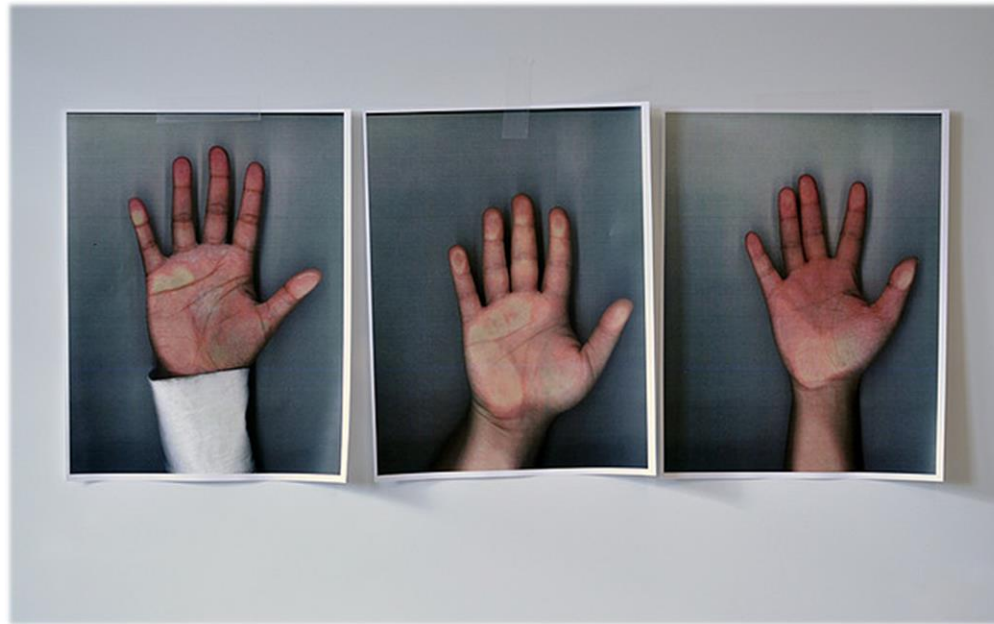
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Focus Areas ▼   Initiatives ▼   Events ▼   Get Involved ▼

Visit WCET's New Website to learn about our Focus Areas, Initiatives, Events, Membership and Sponsorship: http://wcet.wiche.edu/

Join WCET: learn more about the benefits of joining our community:

http://wcet.wiche.edu/join-wcet

Additional Information and Resources

Access to the resources discussed during this webcast, including the archive, will be available next week.

http://wcet.wiche.edu/connect/webcasts

Learn More and Stay Connected

WCET Leadership Summit: Essential Institutional Capacities to Lead Innovation

June 14-15

Salt Lake City, UT

WCET Annual Meeting

October 25-27

Denver, CO

Thank you Supporting Members for your commitment to WCET and e-Learning

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