

ADLM Training Workshop

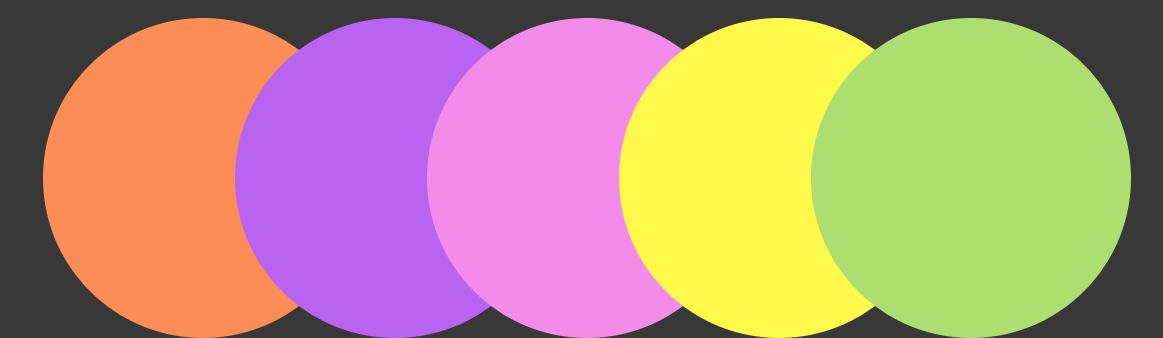
September 2024



Industry Challenge 2



# Navigation



# The challenges



- How can AI be used to create accessible navigation and document structure of digital learning resources?
- How can navigation be personalized to different kinds of assistive technology, interfaces and user needs?

Assistive technologies are related to large cognitive loads of use.

Vegard

It is not possible to categorize users in four disabilities (motor, visual, auditive, cognitive...)

Miguel Oliva

Different needs, different technologies, leads to again differing needs (possibly even for users with same disabilities).

Eye tracking lacks portability and availability (price, resources).

Vegard

Need for overviews at different levels of content.

Vegard

Personalization of content to user's specific needs.

For example: speed of the speech in screen narrators, for someone that is blind and has dyslexia/TDAH

Vegard

Accessibility is just the 'tip of the iceberg'

Vegard

Inclusion goes beyond just physical disabilities. (Socio-economic, communication skills, level of education)

Vegard

Assistive technologies take time to use.

Vegard

Reduce cognitive load of using assistive tech?

Vegard

There should be an easy/simple way to analyze the needs of users.

Miguel Oliva

In terms of web/apps/software usage, we should enforce accessibility standards by gamifying the accessibility rankings of this interfaces, and probably rank them better or worse (on search engines for instance) whether they follow standards or not. Of course, this should be followed by better analysis and tests that are done to pages/apps, this should be improved with AI.

promatik

**Policy Recommendation/Regulation:**

**Objectives:**

- Build an environment capable of integrating colleagues/team members with disabilities
- Ensure that the industry infrastructure is able to include and establish as part of the integration policy that people have a minimum knowledge to support accessibility tools.
- Constant retraining

Strengthening this policy as part of the company's culture, so that it ceases to be a formal commandment and becomes part of everyday life.

Ferlanda

Create overviews of different levels of content, from desktop, to program, to document to content; and so on?

Vegard

Define user profile via:

- Feedback from users
- Automatic learning

Miguel Oliva

How can AI tech be used to structure content, or improve content structure for easier grouping or navigation?

Vegard

It would be ideal that no direct questions about disabilities are asked, just about preferences

Miguel Oliva

Can navigation of entire websites or apps be made possible (sitemaps)?

Vegard

Sidenote: Technology should be made accessible not in the grounds of commercial viability, but inclusion in general

Miguel Oliva

Advance the culture around understanding user needs and inclusive design.

Vegard

INCENTIVATION over PUNISHMENT

Vegard

Conversational interface, as a conversation.

Vegard

Digital navigation can be challenging, but AI could be used to enable voice commands.

Vegard

Could AI be used to summarize different levels of content?

Vegard

Ferlanda

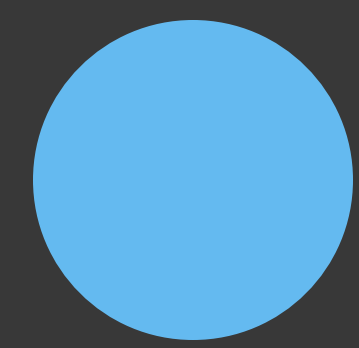
Digital Inclusion Plan


Roles & responsibilities

Principles & Priorities

Shared vision of digital inclusion

Ferlanda



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1. Accessibility is just the tip of the iceberg of universal design
  2. Reducing cognitive load seems vital
  3. Defining and refining user profiles using AI and user feedback loops
  4. AI could have a role in solving these challenges

# Ideas



01

Conversational interface

AI could also enable conversational interfaces, although not for people with speech impairments.

02

Integration + convergence

Could assistive tech be implemented on system level, instead of program or content level?

03

Summaries of different interaction levels

AI enabled overviews at level of desktop, documents, content and content elements.

04

Incentivation over punishments

Page rank, commercial benefits, brand loyalty as incentivizing goals, perhaps not daily fines.