Technology Pilot Report:
Anthology Ally

Report Contents

Note: This report summarizes outcomes of a specific UBC pilot. Findings do not reflect broader or official UBC opinions about the learning technology evaluated.

UBC's Learning Technology Hub

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Background

What is Ally?

Ally is a tool for making content in Canvas more accessible

Ally is a content-checking tool that works with Canvas—UBC's primary online platform for courses—to help instructors evaluate the accessibility of their online course content. Once Ally is turned on in a Canvas course, each piece of content is assigned an accessibility score. This score is intended to reflect how accessible the content is for people with vision or hearing impairments and similar learning barriers.

Depending on the score and the type of content, Ally may provide tips or instructions for instructors to improve the accessibility of their content. Ally will also create alternative formats of certain types of content[1]. These alternative formats allow students to access the content in different ways (e.g., having it read to them, reading it with increased contrast), based on their needs or preferences.

Why did we pilot Ally in 2022/23?

A tool like Ally may help UBC meet new accessibility standards

In June 2021, the provincial government finalized the Accessible British Columbia Act, which establishes a framework for improving accessibility across the province. As part of the act, new standards are being developed and institutions such as UBC must be prepared to meet them.

More specifically, it is anticipated that UBC course content will need to meet the standards. Canvas currently provides a built-in "Accessibility Checker" tool that instructors can use to fix some common accessibility issues. However, at the time of writing, the tool has two notable limitations:

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[1] At the time of writing, Ally provides alternative formats for content created in the Canvas text editor and for content uploaded as PDF, Microsoft Word, Microsoft Powerpoint, OpenOffice/LibreOffice, and HTML files.

1. **It can only check content created in the Canvas text editor.** It cannot check anything created externally and then uploaded to the course (e.g., PDFs, slides).

2. **It can only be run while editing a specific piece of content**. Instructors cannot see an overview of issues but must check content items one-by-one.

A tool like Ally—which can check uploaded files[2] and show a course overview—could address these limitations and potentially help instructors meet future standards more efficiently.

But the impact of a university-wide rollout of Ally is uncertain

UBC participated in an initial, cross-institution pilot of Ally in 2018 and determined that the tool could be suitable for campus-wide use. However, following the disruption of the March 2020 pandemic, UBC delayed a broader rollout of Ally. This delay was to prevent instructors from having to learn another new tool at an already stressful time.

Further evaluation of the instructor Ally experience in 2021 raised potential challenges of a broader rollout. The seven participating instructors generally thought that Ally was informative, providing valuable, contextualized feedback that was specific to their course content. But the instructors were not always sure how to act on this information. Ally's guidance was unclear at times; even with clear guidance, some issues simply could not be fixed[3]. Instructors also noticed inaccurate conversion for some alternative formats.

To better understand its impact, Ally was rolled out in a single faculty

To see how the potential benefits and challenges of Ally might scale with broader use, the Learning Technology (LT) Hub turned on the tool for all courses in a single faculty for two terms. This wider-scale pilot looked at several questions:

- How many teaching teams would engage with Ally before or during the term?
- How many teaching teams would ask for Ally to be disabled?
- What questions would instructors or students raise with support staff?
- What perceptions would instructors and students report about Ally?
- What other information might instructors and students need to use Ally effectively?

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[2] At the time of writing, Ally can check content created in the Canvas text editor and content uploaded as PDF, Microsoft Word, Microsoft Powerpoint, OpenOffice/LibreOffice, HTML, and image files.

[3] For example, if a PDF file has accessibility issues, but the instructor does not have the original file to edit, it may be impossible to fix the issues. The instructor will also not be able to dismiss this flagged PDF in Ally.

Methodology

How did we run the Ally pilot?

Ally was turned on for Faculty of Education courses in multiple terms

For this pilot, the LT Hub turned on Ally in 581 2022/23 W2 and 455 2023 S Canvas courses[4] for the Faculty of Education. Enabling Ally changed the view of these courses in two main ways:

1. Instructors saw the Ally green or red accessibility dial icons on applicable course content (see Appendix C for accessibility dial icon example). They could click these icons to view feedback about the accessibility of the content.

2. Instructors and students saw the Ally alternative format icon on applicable course content (see Appendix C for alternative format icon example). They could click this icon to choose a different format for accessing the content.

The LT Hub also ensured that Ally's optional 'Accessibility Report' link appeared in each course's sidebar navigation in Canvas. Clicking this link would bring the instructor to an overview of issues in the course (see Appendix C for accessibility report example). Students did not see this link, since they cannot access these reports.

Multiple announcements and support options accompanied the pilot

Prior to enabling Ally, the Faculty of Education and the LT Hub took steps to prepare instructors for the change:

- The Faculty of Education communicated about Ally broadly, using Canvas announcements, Faculty-wide newsletters, department-level meetings, the Dean's and Associate Deans' communication channels, Education's Learning Design & Digital Innovation (LDDI) website, and the LDDI social media accounts.

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[4] Not all of these Canvas courses were actively used during the respective terms. A few were course templates; others were placeholders for courses whose instructors did not put content in Canvas. Based on the available data, 395 W2 and 146 S courses were estimated to have been actively used.

- LDDI staff offered proactive support with a [Canvas course about Ally](), related workshops / drop-ins, and one-on-one consultations. In training, staff intentionally framed Ally as a tool for learning about accessibility, rather than identifying mistakes.
- The LT Hub published an [Ally instructor guide]() on the LT Hub website, with instructions, tips, and anticipated frequently asked questions about the tool.

How did we evaluate the Ally pilot?

Basic Ally statistics were collected throughout the W2 term

At four points between November 2022 and April 2023, the LT Hub extracted Ally accessibility scores for the W2 pilot courses. The goal of tracking the accessibility scores was not to focus on the scores themselves, as these were not necessarily meaningful[5]. Rather, the goal was to examine the scores' movement during the term. If a score moved up noticeably, it was more likely that the teaching team was engaging with Ally.

Additionally, the LDDI and LT Hub staff tracked requests to disable Ally. Both groups also noted any common questions raised about the tool during the term.

Instructors and students were surveyed during the terms

Two surveys were run from mid-February to the end of June:

1. The instructor survey consisted of 13 questions (see [Appendix A]() for the instructor questions).
2. The student survey consisted of 4-10 questions, depending on how much the student had used Ally (see [Appendix A]() for the student questions).

The surveys were shared via multiple Canvas announcements that were visible to instructors and students participating in Faculty of Education courses. They were further promoted with instructors via Faculty of Education newsletters and individual emails.

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[5] Ally accessibility scores for each course are calculated based on all applicable content—regardless of what the instructor has made visible to students or not. Because of this and other calculation complexities, the course scores alone cannot be considered definitive indicators of the accessibility of the content for students.

Findings

Who participated in evaluating the Ally pilot?

A low percentage of instructors and students gave feedback on Ally

By the end of June, 7 Faculty of Education instructors and 120 students had taken the respective surveys. The students represented more than 100 different courses/sections.

However, of the 120 students, only 41 were aware of Ally's alternative formats. Even fewer—21—had tried a format and could give further feedback on the experience.

All instructors had already worked to address accessibility

All of the instructors who took the survey reported that they had already done a good amount (or more) to address the accessibility of their course content. Although coming from a small sample size, this outcome supported a broader finding of higher initial course accessibility scores across the Faculty.
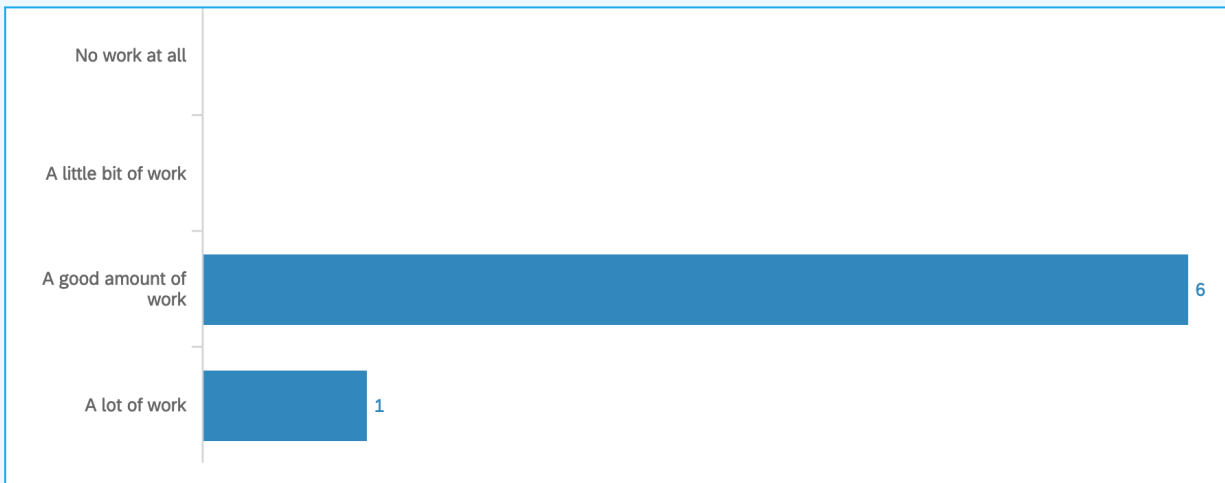

Chart 1: Responses to Q2 'Before using Ally, what work, if any, had you done to address the accessibility of your course content?' (N=7)

What did we learn about Ally from the pilot course scores?

A minority of teaching teams seemed to engage with Ally

While it is not possible to definitively say when 'engagement' with Ally has happened, the general lack of movement in the course accessibility scores was notable. In looking at score movements of at least 2%:

- 14% of active courses increased by this amount or more,
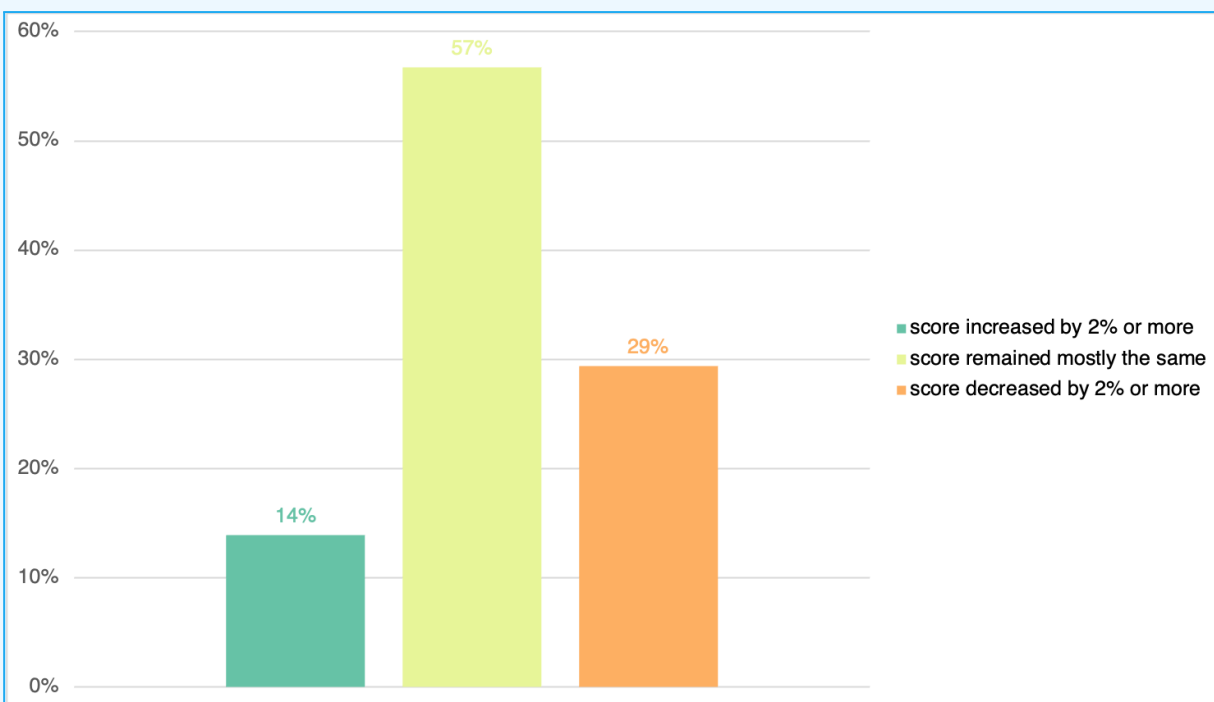- 57% stayed the same (or moved by less than 2%), and
- 29% decreased[6].

Chart 2: Changes to course accessibility scores in Ally during the 2022/23 W2 term (N=395)

In looking at score movements of at least 5%, this trend was heightened: 8% of courses increased, 76% stayed the same (or moved by less than 5%), and 17% decreased.

Course accessibility scores in the Faculty also had an average of 71% in February 2023. Thus, it is possible that

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[6] Course accessibility score movements may indicate use of Ally to improve the content, but may also be the result of adding or deleting content in the course.

- fewer teaching teams may have used Ally heavily during the term to change their course content, but
- there may have been relatively fewer accessibility issues for teaching teams to quickly or easily fix.

Files in courses showed the biggest room for potential improvement

Ally breaks down the course accessibility score into a score for the content in the files and another for the content in the Canvas text editor. A significant gap emerged when looking at this breakdown.

In April 2023, the average score across the Faculty for the file content was 49%; the average for the text editor content was 99%. This finding suggests that—at least in this Faculty—the Canvas built-in 'Accessibility Checker' tool would not be able to guide teaching teams to the content that may require the most attention.

What did we learn about Ally from the pilot instructors?

Almost no one asked to remove Ally from a course

LDDI staff received one request from an instructor to turn off Ally. The LT Hub did not receive any requests. In fact, the LT Hub received the opposite: requests to turn on Ally for a few courses that were inadvertently missed.

Support questions focused on how to use the tool, not why

LDDI staff felt that while many instructors "*may not have enthusiastically used the tool, they also don't seem to question it*". Support requests received by LDDI staff and the LT Hub were minimal and focused in a few familiar areas:

- how to deal with specific flagged content (e.g., a PDF that the instructor did not have the original file for),
- how urgently any accessibility issues should be addressed (especially if no students were known to have vision or hearing impairments in the course), and
- what students could see (e.g., whether students saw the accessibility dial icons).

Instructors expressed mixed opinions on Ally overall

More of the instructors who responded felt positively about their experience with Ally. But opinions fell on either end of the rating spectrum.
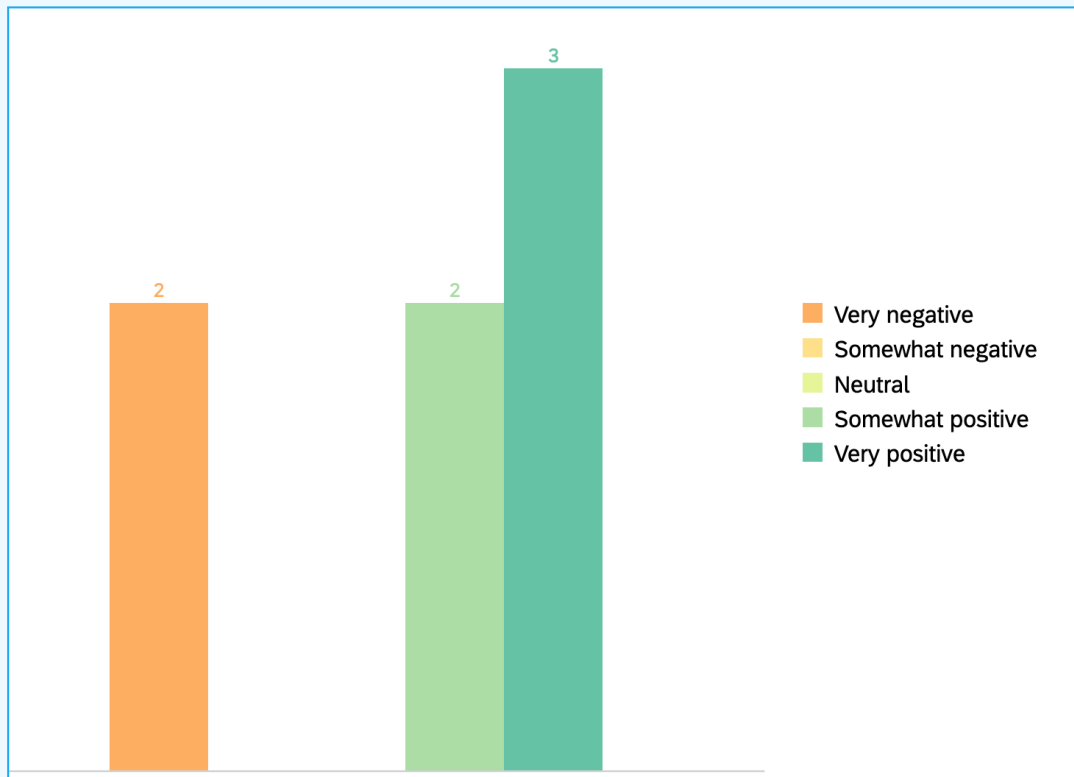

Chart 3: Responses to Q6 'Please rate your overall experience with Ally.' (N=7)

Mixed opinions could also be seen in how likely instructors were to recommend Ally.

Chart 4: Responses to Q12 'How likely are you to recommend Ally to another instructor?'[7] (N=7)

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[7] The Net Promoter Score is a common metric for measuring satisfaction, which frames the rating in terms of how likely a person would be to recommend a product or service to someone else. Based on what rating number (0-10) that people select, they are grouped as 'detractors', 'passives', or 'promoters'.

Ally's ease-of-use and support for inclusivity were positive aspects

Instructors who had a positive experience mentioned how Ally was generally easy to use and *"literally steps you through how to fix things"* for some issues. For at least one instructor, it became an essential tool for doing accessibility reviews of course content.

Instructors also appreciated the alternative formats that Ally offers to students, which may help UBC *"finally 'walk the talk' when it comes to inclusion"*.

Ally's limited guidance and ownership assumptions were negative aspects

Instructors who had a less positive experience noted how Ally's guidance was not always available (see Appendix C for lack of instructions example) or could not always be followed (see Appendix C for ambiguous instructions example). This missing or limited guidance meant that, while instructors may have found Ally helpful in identifying issues, fewer found it helped resolve those issues.
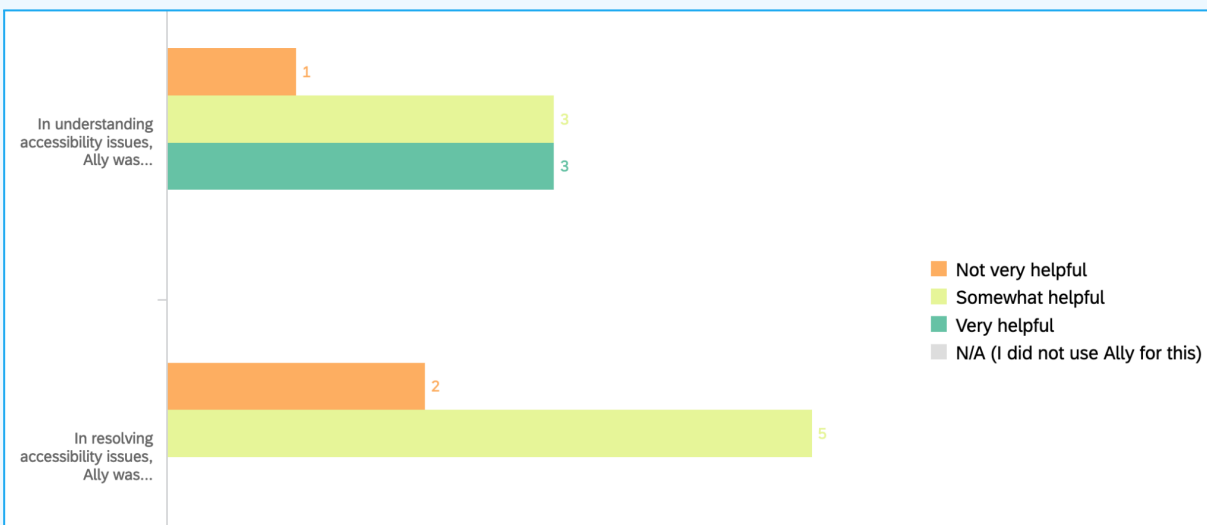
Chart 5: Responses to Q5 'How helpful or not did you find Ally in understanding and resolving accessibility issues in your course?' (N=7)

Part of this frustration comes from Ally's assumption that instructors have full ownership over all of the course content that they share. Challenges thus arose when *"issues identified by Ally are beyond my control"*. As one instructor pointed out: *"most PDFs that I share have been produced by the UBC Library"*. When Ally flagged those PDFs, the instructor could not do anything to fix them.

These limitations and assumptions may have contributed to the negative impact on motivation and confidence for a couple of instructors (see Appendix B for charts).

What did we learn about Ally from the pilot students?

Almost a third of students reported access issues that Ally cannot fix

When asked if they had trouble accessing course content in Canvas, approximately 30% of students reported trouble with one or more types of content (see Appendix B for chart).

In describing their troubles, students did not raise issues that Ally is designed to fix. Rather, they described more fundamental access barriers:

- **Technical troubles** - issues having to do with weak internet connections, unresponsiveness with Canvas, and/or an inability to access external tools from Canvas. Examples included trouble with downloading/uploading files, playing multimedia, and getting to materials in course reserves.

- **Course design challenges** - issues related to how the instructor was sharing course content. Examples included challenges with navigating the course structure, viewing overly small images/slides, and opening file formats that required a specific application.

This feedback does not mean there is nothing that Ally can (or did) improve for these students. But it does point out that students can run into many access barriers that are outside of Ally's remit.

Most students were not aware of Ally's alternative formats for content

Nearly two-thirds of the students who responded—64%—were not aware that they could download alternative formats of course content. Since all but one course had Ally turned on during the pilot, this finding is significant.
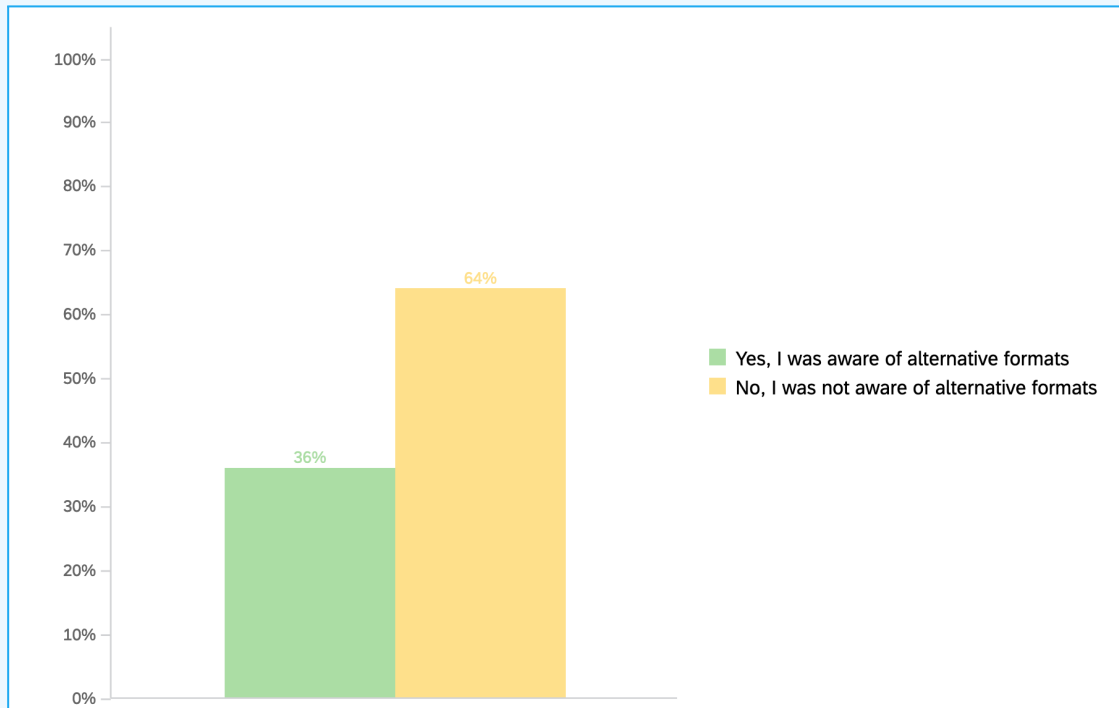
Chart 6: Responses to Q4 'Were you aware that you could use alternative formats to access some course content in Canvas?' (N=114)

For some students, how to access the alternative formats was unclear—"*I was never able to find the 'A' icon*". For others, the icon was noticeable but ambiguous—"*I had never thought to click on it*". As another student put it, "*If I had known I would have tried!*"

Among those students who did know about alternative formats, about half tried one or more of the options (see Appendix B for chart). Most of these downloads were in the tagged PDF format.

For those who tried alternative formats, opinions were mixed

Student opinions varied on the helpfulness of Ally's alternative formats. Nine students found them 'not very helpful' or 'somewhat helpful'; eleven found them 'quite helpful' or 'very helpful'.
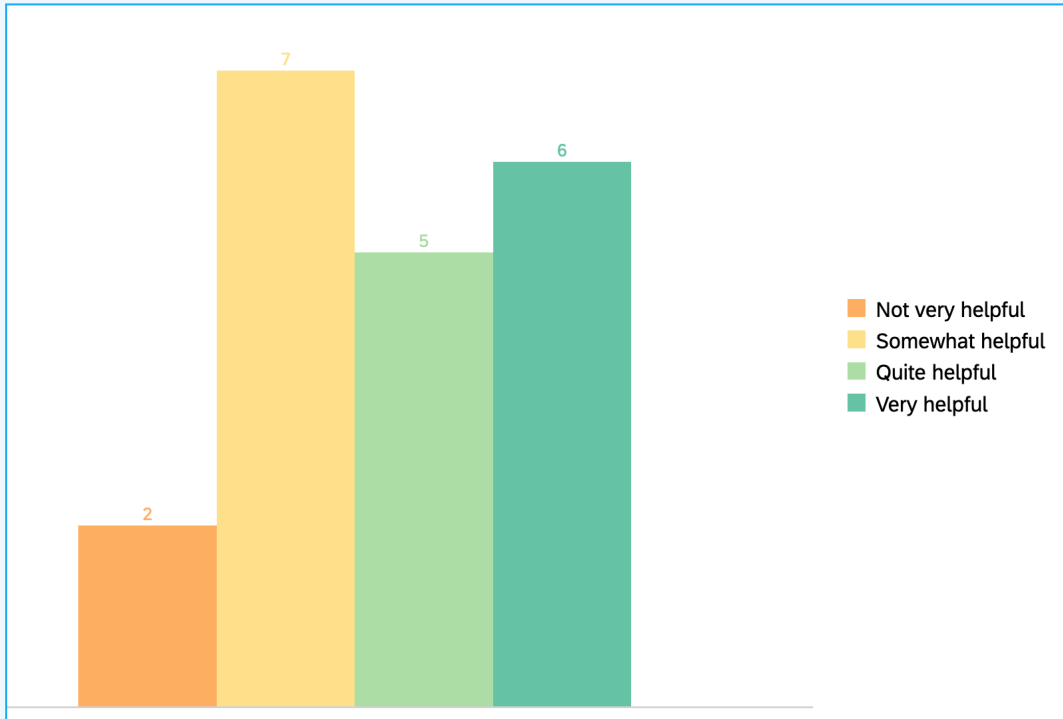
Chart 7: Responses to Q6 "How helpful or not did you find the alternative formats?" (N=20)

Opinions were also mixed when students rated how likely they were to recommend Ally be used in other UBC courses. Here, similar to the instructors, a bell curve occurred.

Chart 8: Responses to Q9 "How likely are you to recommend Ally and its alternative formats be turned on in other courses at UBC?" (N=31)

Students did not provide much feedback on what they didn't like about alternative formats. One student noted that "*they required extra steps to download*". Otherwise, students mentioned not needing or not easily understanding the formats.

But students liked the idea of having more ways to interact

Eight students said that they liked how the alternative formats presented "*many options to interact with the material*". Having options helped at least one student find what would "*work for me and how I want to learn the particular topic*"; a handful of students said they appreciated in particular being able to download course content to work with in a PDF.

■ ■ ■

Recommendations

What did the pilot perspectives tell us about rolling out Ally?

In summary, this pilot showed that Ally has the potential to identify ways that UBC course content could better follow accessibility standards.

Unlike the current content-checking tool available in Canvas, Ally can check uploaded files and present an overview of accessibility issues in a course. Some instructors appreciated this guidance in identifying areas for improvement. Ally can also create alternative formats for students to access course content, based on their needs or preferences. Some students appreciated having these options.

However, this pilot has also shown that Ally has significant limitations in how it can help:

- It cannot guide instructors in resolving all of the accessibility issues that it raises.
- It may not motivate instructors to address accessibility issues.
- It cannot help students overcome fundamental access barriers due to technical issues or problems with course design.
- It may not intuitively explain to students what alternative formats are or how to access them.

The following recommendations may help address some of these limitations, if Ally will be centrally adopted and supported at UBC going forward.

1) Communicate a rollout of Ally broadly and well ahead of time

LDDI staff stressed the importance of their advance communications in helping instructors not be surprised by having Ally turned on. A wider rollout should also involve communicating through multiple channels, early and often. Everyone should know what the change to their courses will look like, how it may help, and what its limitations are.

2) Include guidance in the communication on accessibility best practices

The communication plan would ideally also compile and highlight accessibility resources that can complement the work done with or raised by Ally. These resources could help explain areas where Ally currently offers no or limited guidance.

3) Update the LT Hub Ally instructor guide with strategizing tips

The LT Hub Ally documentation could be updated to help instructors prioritize the accessibility issues raised by Ally. However, these updates would need to be directed in consultation with university accessibility centres and leadership. The guide could also be reworked more for course designers generally, rather than instructors specifically.

4) Have a communication plan for students as well as instructors

The communication plan should also target channels aimed at students. These communications would focus on what alternative formats are and where to find them in a Canvas course, as well as noting potential limitations to the format conversion.

5) Create a student-focused accessibility resource and spotlight Ally

The LT Hub could also consider creating a accessibility-focused resource for students similar to its [accessibility-focused resource for instructors](). This resource could suggest ways of tackling general access barriers, as well as featuring accessibility tips for using specific tools like Ally.

6) Seek alignment between Ally's guidance and UBC Library processes

UBC Library is in the process of hiring more librarians, and at least one will focus more on accessibility. In the meantime, the library has said it would be helpful to receive clear guidance on the accessibility best practices for creating PDFs. These practices could be built into new library standards for how materials are regularly processed.

Appendices

Appendix A: Ally Pilot Instruments

A.1) Instructor survey questions

1. Which course(s) did you try Ally in during 2022/23 Winter Term 2? *
   - Prefer not to say
   - [multi-select of pilot courses]

2. Before using Ally, what work, if any, had you done to address the accessibility of your course content? *
   - No work at all
   - A little bit of work
   - A good amount of work
   - A lot of work

3. What impact did seeing the course results in Ally have on your motivation to address the accessibility of your course content? *
   - Significantly less motivated
   - A little less motivated
   - Neither less nor more motivated
   - A little more motivated
   - Significantly more motivated

4. How much did you try to use Ally to understand and resolve accessibility issues in your course? *
   - Not at all
   - A little bit
   - A good amount
   - A lot

5. How helpful or not did you find Ally in understanding and resolving accessibility issues in your course? *
   - In understanding accessibility issues, Ally was...
     - N/A
     - Not very helpful
     - Somewhat helpful
     - Very helpful

- In resolving accessibility issues, Ally was…
    - N/A
    - Not very helpful
    - Somewhat helpful
    - Very helpful

6. Please rate your overall experience with Ally. *
    - Very negative
    - Somewhat negative
    - Neutral
    - Somewhat
    - Positive
    - Very positive

7. What, if anything, did you like or appreciate about Ally?

8. What, if anything, did you not like or find challenging about Ally?

9. How would you rate your confidence in creating accessible course content, before and after using Ally? (Your response may be the same for both rows.) *
    - Before using Ally, I felt…
        - N/A
        - Not at all confident
        - Somewhat confident
        - Confident
        - Very confident
    - After using Ally, I felt…
        - N/A
        - Not at all confident
        - Somewhat confident
        - Confident
        - Very confident

10. How useful was any training or support you used for Ally?
    - Ally's support pages for instructors
        - N/A
        - Not useful at all
        - Slightly useful
        - Moderately useful
        - Very useful
    - Help from your Instructional Support Unit (e.g., ETS)
        - N/A
        - Not useful at all
        - Slightly useful

- - - Moderately useful
      - Very useful
    - ETS's Accessibility & Ally training course in Canvas
      - N/A
      - Not useful at all
      - Slightly useful
      - Moderately useful
      - Very useful
    - Help from the LT Hub
      - N/A
      - Not useful at all
      - Slightly useful
      - Moderately useful
      - Very useful
    - UBC's Ally instructor guide
      - N/A
      - Not useful at all
      - Slightly useful
      - Moderately useful
      - Very useful

11. What, if any, questions or concerns do you still have about Ally?

12. How likely are you to recommend Ally to another instructor? *
    - Not at all likely [0] to Extremely likely [10]

13. Is there any other feedback you would like to share about Ally?

A.2) Student survey questions

1. Which Faculty of Education course(s) would you like to give Ally feedback on for the 2022/23 Winter Term 2? *
   - Prefer not to say
   - [dropdown of pilot courses]

2. Please select any course content that you had trouble accessing in Canvas. If you had no trouble accessing course content, go ahead to the next question.
   - Pages of text
   - Images
   - Slides
   - Videos
   - Audio clips
   - PDF files

- ○ Word files
- ○ Other (please describe): _____

3. [if any selected in #2] Please describe the trouble you had accessing this content.

4. Were you aware that you could use alternative formats to access some course content in Canvas, using the 'A' icon with a down arrow? (Alternative formats are automatically created by Ally so you can engage with content in Canvas in another way. For example, you could listen to an .mp3 audio file of a text page.) *
   - ○ Yes, I was aware of alternative formats
   - ○ No, I was not aware of alternative formats

5. [if aware in #4] Please select any Ally-created alternative formats you tried for course content in Canvas. Note that these formats refer to what you download using the 'A' icon with a down arrow beside it in the course.
   - ○ OCR'd version of scanned file
   - ○ Tagged PDF
   - ○ HTML
   - ○ ePub
   - ○ Electronic braille (.brf)
   - ○ Audio (.mp3)
   - ○ BeeLine Reader
   - ○ Immersive Reader
   - ○ Other (please describe): _____

6. [if aware / selected in #5] How helpful or not did you find the alternative formats? *
   - ○ Not very helpful
   - ○ Somewhat helpful
   - ○ Quite helpful
   - ○ Very helpful

7. [if aware in #4] What, if anything, did you like or appreciate about the alternative formats?

8. [if aware in #4] What, if anything, did you not like or find challenging about the alternative formats?

9. [if aware in#4] How likely are you to recommend Ally and its alternative formats be turned on in other courses at UBC? *
   - ○ Not at all likely [0] to Extremely likely [10]

10. If you have any other feedback about the accessibility of this course or the alternative formats created by Ally, please share it below.

Appendix B: Additional Ally Pilot Data
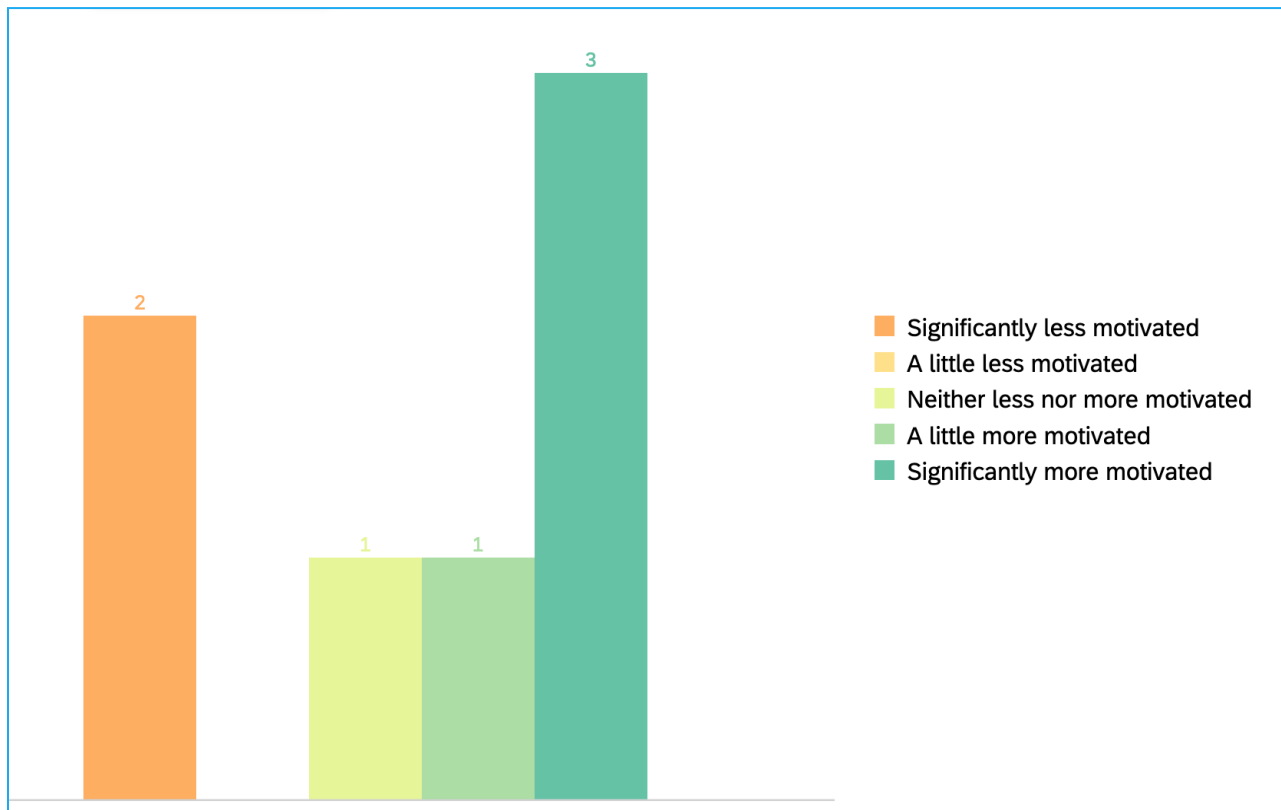
Chart B.1: Instructor responses to Q3 'What impact did seeing the course results in Ally have on your motivation to address the accessibility of your course content?' (N=7)
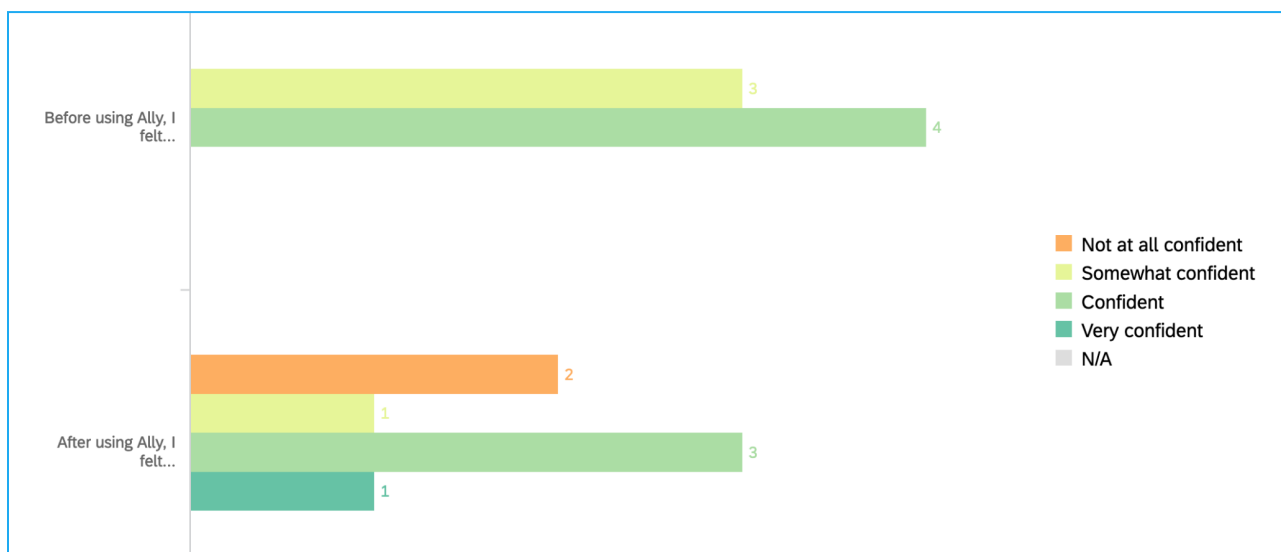
Chart B.2: Instructor responses to Q9 'How would you rate your confidence in creating accessible course content, before and after using Ally?' (N=7)

Pages of text	10
Images	5
Slides	8
Videos	10
Audio clips	7
PDF files	13
Word files	6
Other (please list the types):	7

Chart B.3: Student responses to Q2 'Please select any course content that you had trouble accessing in Canvas.' (N=35)[8]

OCR'd version of scanned file	3
Tagged PDF	11
HTML	6
ePub	4
Electronic braille (.brf)	
Audio (.mp3)	4
BeeLine Reader	2
Immersive Reader	6
Other (please describe):	1
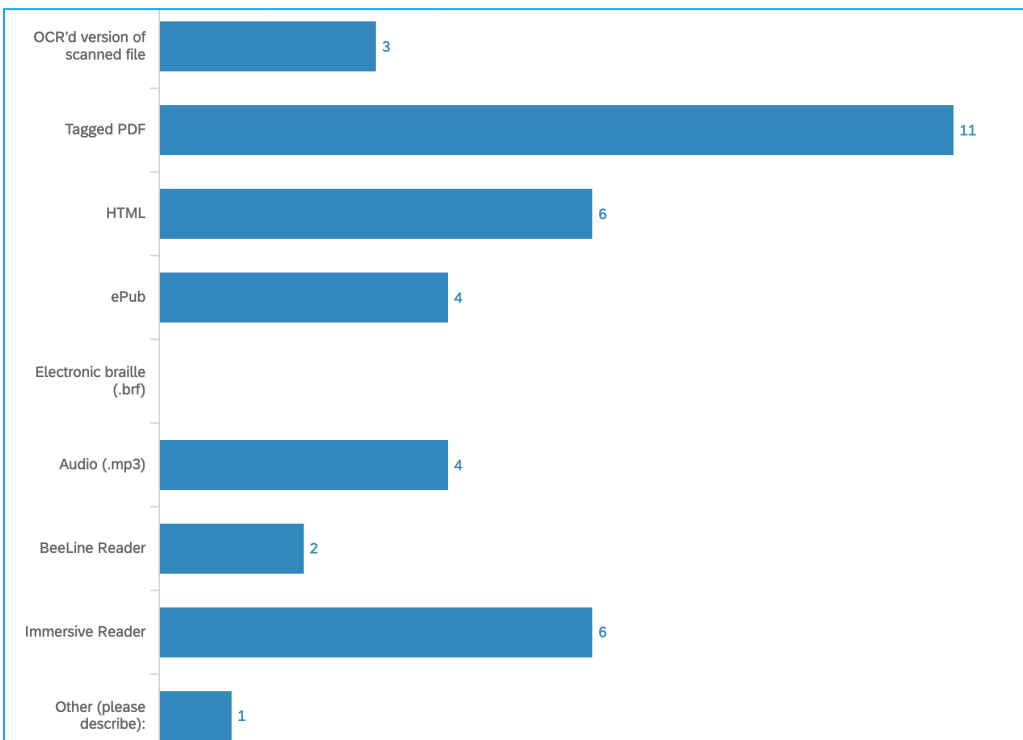
Chart B.4: Student responses to Q5 'Please select any Ally-created alternative formats you tried for course content in Canvas.' (N=21)

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[8] Other listed types were primarily course reserves, as well as links to other tools used in the course.

Appendix C: Ally Screenshots

Screenshot C.1: Example of Ally's red and green accessibility dial icons for instructors on a Canvas content page
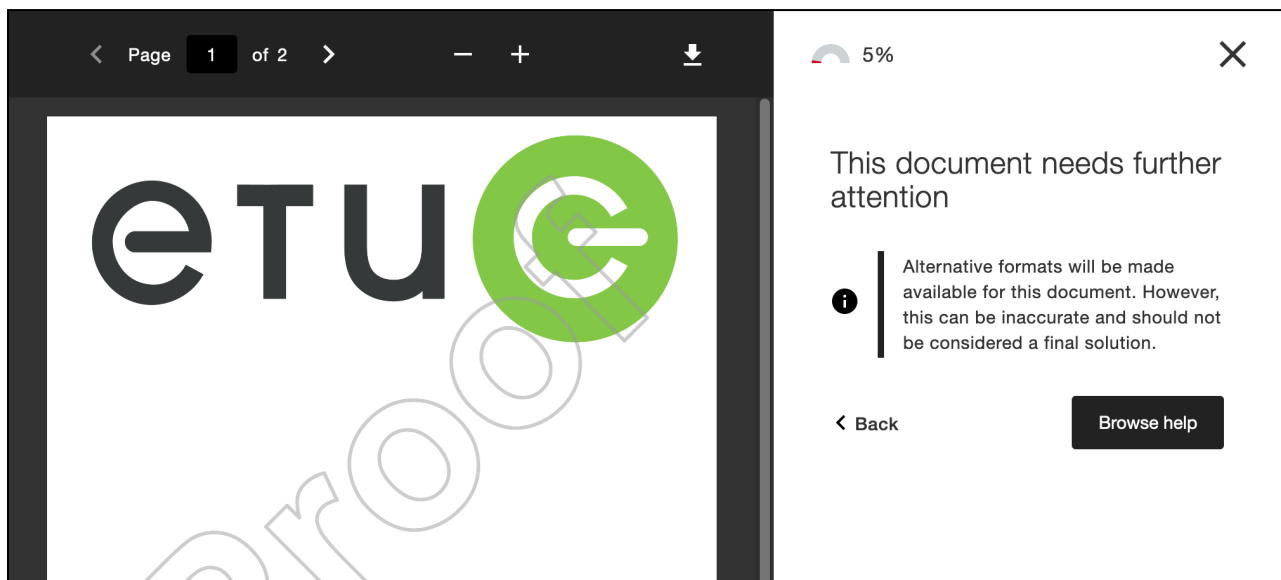

Screenshot C.2: Example of Ally's alternative formats icon ('A') for students and instructors on a Canvas content page
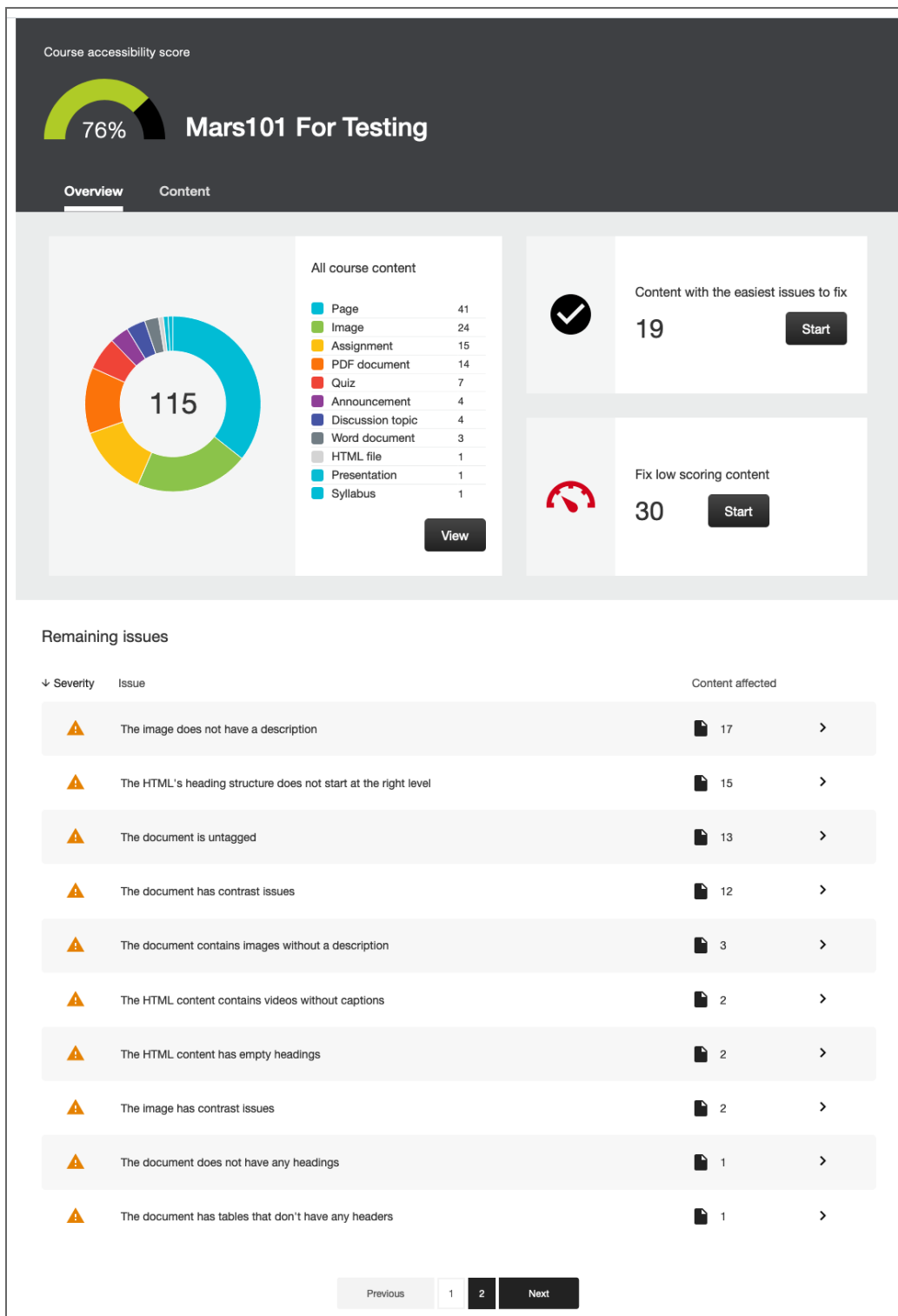
Screenshot C.3: Example of Ally's 'Accessibility Report' overview for instructors in Canvas
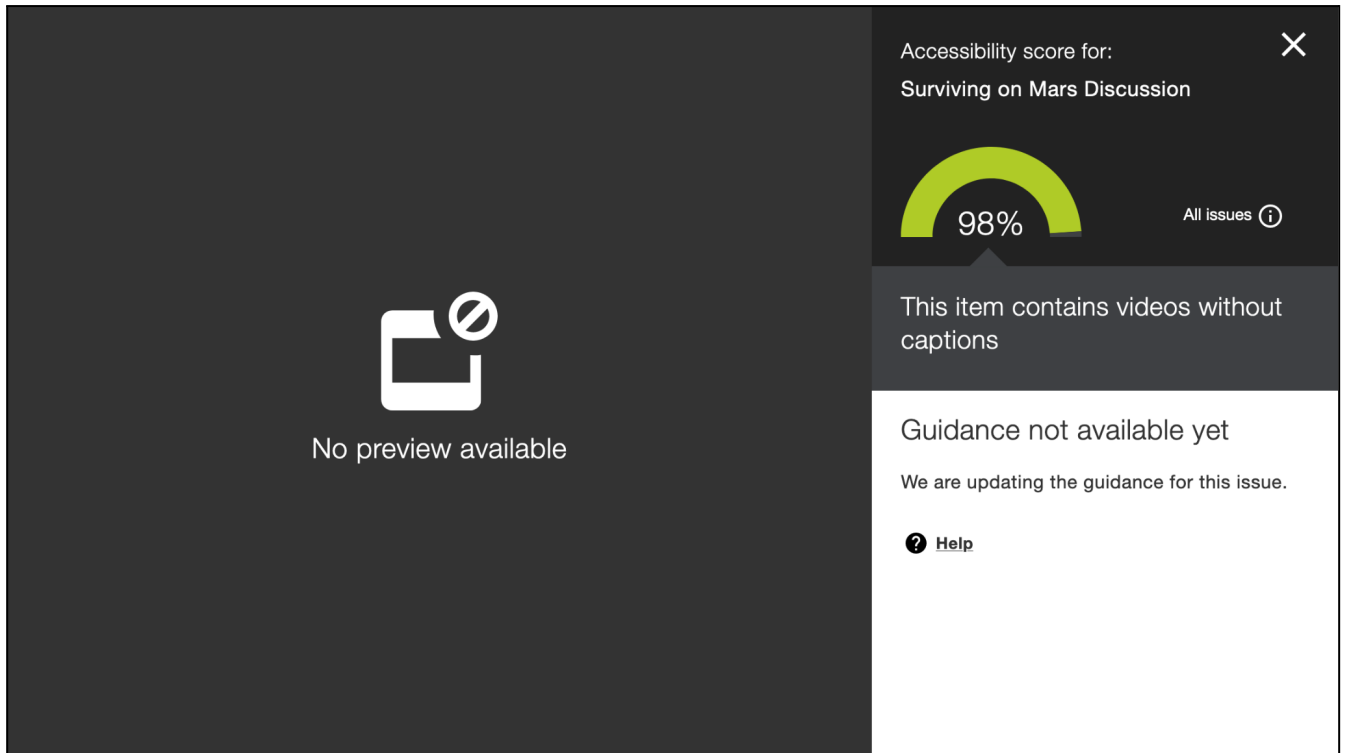
Screenshot C.4: Example of a lack of instructions in Ally

Screenshot C.5: Example of ambiguous instructions in Ally