



Introduction

This report will provide a recommendation for the University in relation to the retention or removal of Ally from Anthology (formerly Blackboard), as the accessibility tool within the University's Virtual Learning Environment (VLE) - D2L Brightspace. The report was compiled by UCD IT Services and UCD Access and Lifelong Learning as a joint project to review Ally as the accessibility tool within the VLE.

Ally was introduced to the University in March 2021 procured using funds from a special covid fund available through the Higher Education Authority (HEA) and purchased on a three year licence. The report will provide insights into the staff and student usage of the tool since it became available within the University, and provide some insights into the staff and student perspectives of the tool to assist in informing whether the tool should be removed or retained within the University Service portfolio.

The report will recommend that Ally is retained within the University and will put forward data to support the rationale behind the recommendation, such as a year on year increase from students in the download of alternative formats from within Ally in Brightspace, as well as insights from faculty as to the benefit of Ally in supporting their teaching and learning requirements. It will also demonstrate how Ally supports a number of key University Policies and Initiatives such as Equality, Diversity and Inclusion (EDI) and the University for ALL initiative. Finally it will provide insights into how Ally assists the University in meeting a number of regulatory requirements with regards to accessibility and access to alternative learning formats which the University is legally obliged to provide as part of the EU Web Accessibility Directive.

Overview

Ally was introduced to the University in March 2021, purchased from a special covid fund available from the HEA for Universities to support student learning.

Ally is a tool that helps faculty improve the accessibility of course documents. With Ally, students view course documents in a variety of formats that support different learning needs. Ally is integrated into Brightspace and automatically provides alternative formats of certain course documents. Ally offers step-by-step guidance to faculty when a course document or content needs improvement to meet global web accessibility standards.

Ally automatically measures the accessibility of PDF, Word, OpenOffice, HTML or PowerPoint files uploaded to Brightspace. Ally provides an accessibility score for the file with a visible gauge. The accessibility gauge indicates the degree to which a file meets WCAG2.1 accessibility standards. The gauge icons are visible only to the course instructor:

Note: Ally and other accessibility checkers use programmed algorithms and may not identify all accessibility issues.

For students, Ally produces several alternative formats of the original file such as electronic braille, audio, HTML, or tagged PDF. It also gives direct access to integrated assistive technologies such as Immersive Reader (a read-aloud tool which allows for custom text display) and BeeLine Reader which is a screen filtering tool to support literacy and concentration. Students may download a file version best suited to their needs by opening the drop-down menu next to the file and choosing the "Alternative Formats" option. Ally is available to all students, not only students who have declared a disability or additional learning support requirement, so caters to all student learning preferences and contexts, including the digital device a student uses

Since its introduction to the University, we have seen a year on year increase in students' usage of downloading alternative formats as can be seen in the chart below. While the download trends remain consistent in terms of peaks and troughs throughout the trimester. We can also observe a consistency in terms of the alternative formats downloaded, which aligns with the European averages for most popular formats being downloaded.

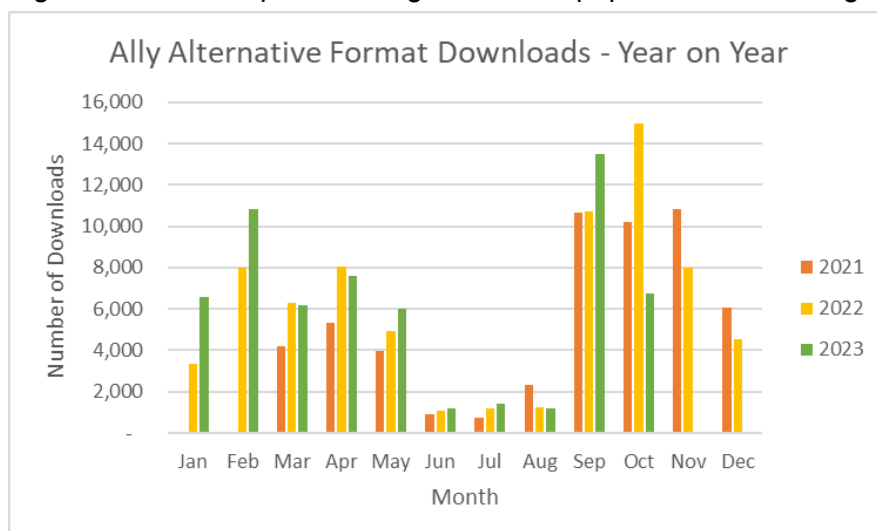


Chart 1: provides an overview of the total number of downloads of alternative formats by students broken down each month over the last three years.

It should be noted in the chart above that the Oct figure only applies to the first two weeks of the month when the data was downloaded but it is also expected to increase, based on the trends witnessed in previous months.

In terms of staff engagement with the system we have seen a total number of accessibility fixes to learning content decline over the last number of years, from 1,135 fixes in 2021/22 to 462 fixes in 2022/23. This could be attributed to a number of factors. The Ally reporting for example only counts fixes that are uploaded through the Ally workflow. It does not count fixes where the instructor uploads the more accessible document again through the standard Brightspace learning content method. Also, within the VLE new modules are created each trimester, individuals who have fixed their content and are looking to share it again with students should not have to fix the content again. By fixing at source this more accessible

learning material will be available for students year on year. Finally, as Ally is intended to be used to assist faculty and teaching staff as a learning tool, it may be a case that more people are creating more accessible content at source and that as such less fixes are required to content. The Universities Ally Score increased by approximately 7% in the year after its introduction from 50% to approximately 56.8% for the academic year 2021/23.

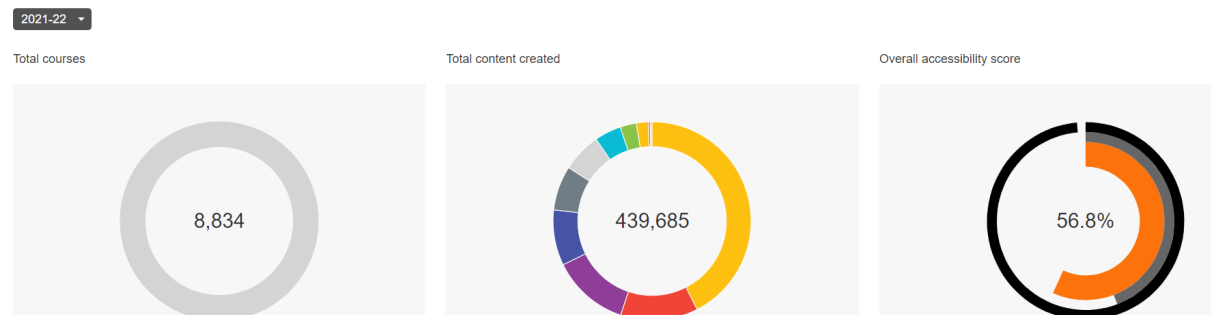


Image 1: Provides an overview of the Ally data for the University including the overall Accessibility score for 2021/22

The Ally score for 2022/23 for the university increased again to 57.3% which backs up the hypothesis that while less fixes may be taking place this could be as a result of the increased awareness of accessibility items at source and that instructors are making these changes at source and are requiring less fixes as a result. However we have also seen a reduction in the number of learning content being uploaded in the VLE.

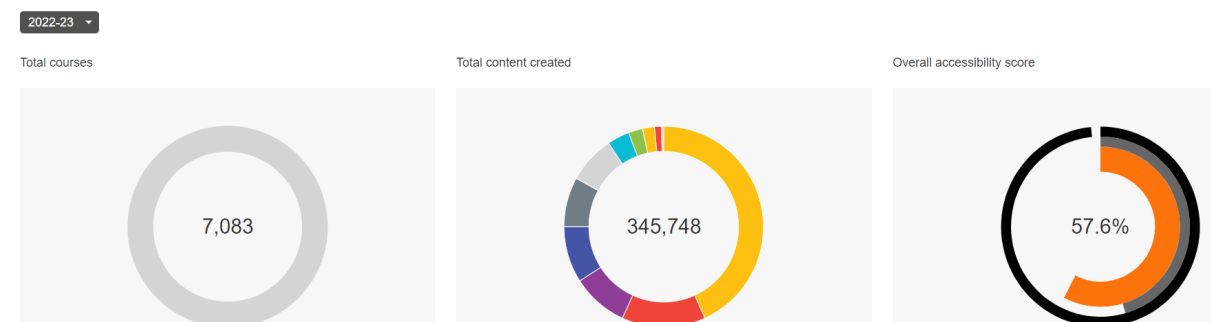


Image 2: Provides an overview of the Ally data for the University including the overall Accessibility score for 2022/23

Staff Feedback

In order to understand the staff perception of Ally further, a survey was conducted with staff as part of the project. A total of 53 people responded to the survey with representation across all colleges in the University.

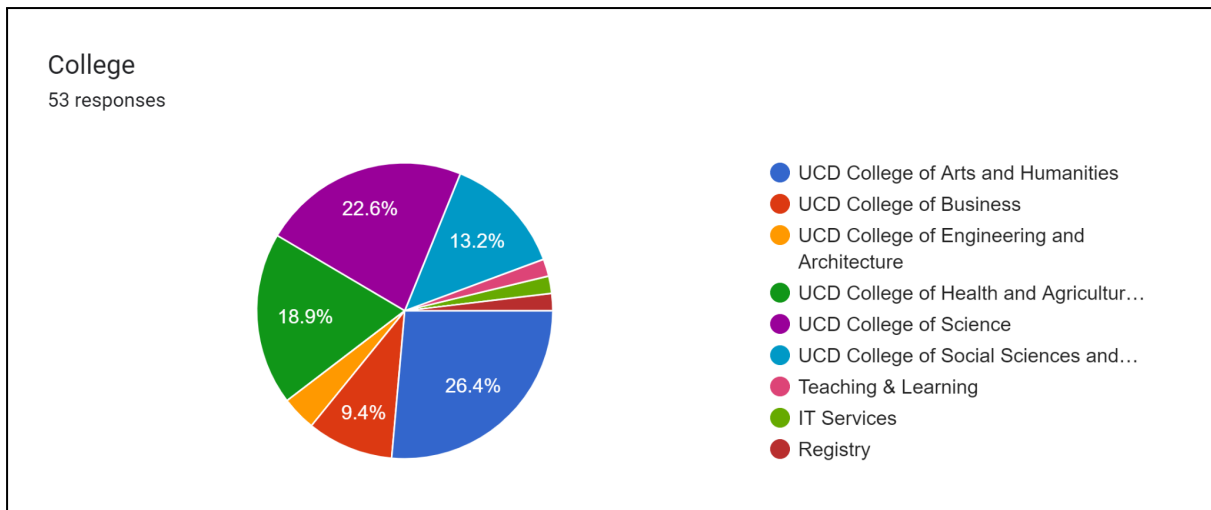


Chart 2: provides an overview of the breakdown of response to the staff survey by college.

Over 50% of the respondents said they use Ally to create more accessible learning materials Always or Often, with a further 19% indicating that they occasionally use Ally to create more accessible learning materials for students. With one individual commenting:

“Ally is a brilliant tool as the students as well as staff have control over format of learning materials, giving them agency and reducing need to clutter-up Brightspace units with multiple file formats”

And another commenting

“Pdf documents are a particularly common issue. Videos without captions also occur occasionally. Ally is also good for picking up on problems of accessibility with other kinds of documents that I wouldn't necessarily have expected or otherwise be aware of.”

However as we can see from the chart below, not everyone uses Ally to support the creation of their learning material, with one individual commenting

“It doesn't recognise latex-produced documents which are the standard type setting format for mathematics, statistics, and to a lesser extent computer science and engineering.”

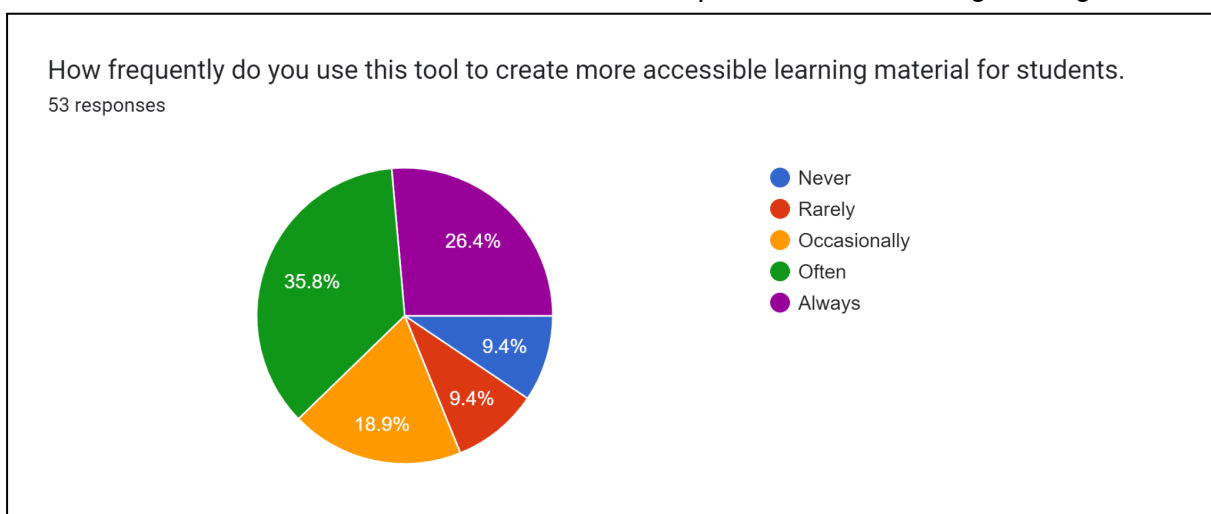


Chart 3: provides an overview of the breakdown of response to the question - how frequently do you use this tool to create more accessible learning material for students.

Almost all respondents said they believed providing accessible learning material is important for students and is beneficial for students' learning experience.

With some comments supporting this such as:

“People have different preferences and accessing information in different formats is helpful. Especially for individuals who have English as their second language and Immersive Reader does both audio and visual in text is useful, moving between different modalities should also decrease format fatigue, e.g. listen to something, then read, etc.”

Another respondent indicated that students have fed back the importance of managing their own learning

“I am teaching an online programme and we have a large percentage of students that have learning disabilities and/or are on the Autism spectrum. Multiple students have reported back to me that being able to download the online content in different formats significantly helps them engage with the material. Being able to download the content in audio, or improved screen reading formats is absolutely crucial for these students to get the most out of their education.”

Another respondent noted how important it is for students to be able to have ownership of their learning and how Ally's alternative formats accommodates this, subsequently removing the need for staff intervention. The manner in which Ally supports Universal Design for Learning and removes the additional labour and time associated with differentiated learning modules and the provision of individual accommodations was a recurrent theme in staff feedback:

“It is crucial. One great advantage of Ally from this perspective is that it means that the instructor does not have to anticipate the impact of all forms of disability or differential learning. Students are given agency to access content in the way that best suits their needs.”

When asked if UCD should retain Ally almost three quarters of the respondents felt that it should be retained, with 11% saying no and 15% Unsure

In your opinion, should the university retain or remove the current Ally Accessibility tool based on its accessibility and download options?

53 responses

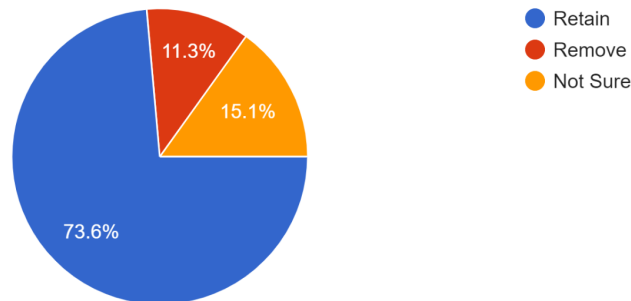


Chart 4: provides an overview of the breakdown of response to the question - should the university retain or remove the current accessibility tool based on its accessibility and download options.

While this is largely positive, when reviewing the data in particular those who were not sure or said to remove Ally, these largely came from the College of Science, with some from other colleges also. However, we can see where the college of Arts and Humanities in particular responded positively to retaining Ally as an accessibility tool.

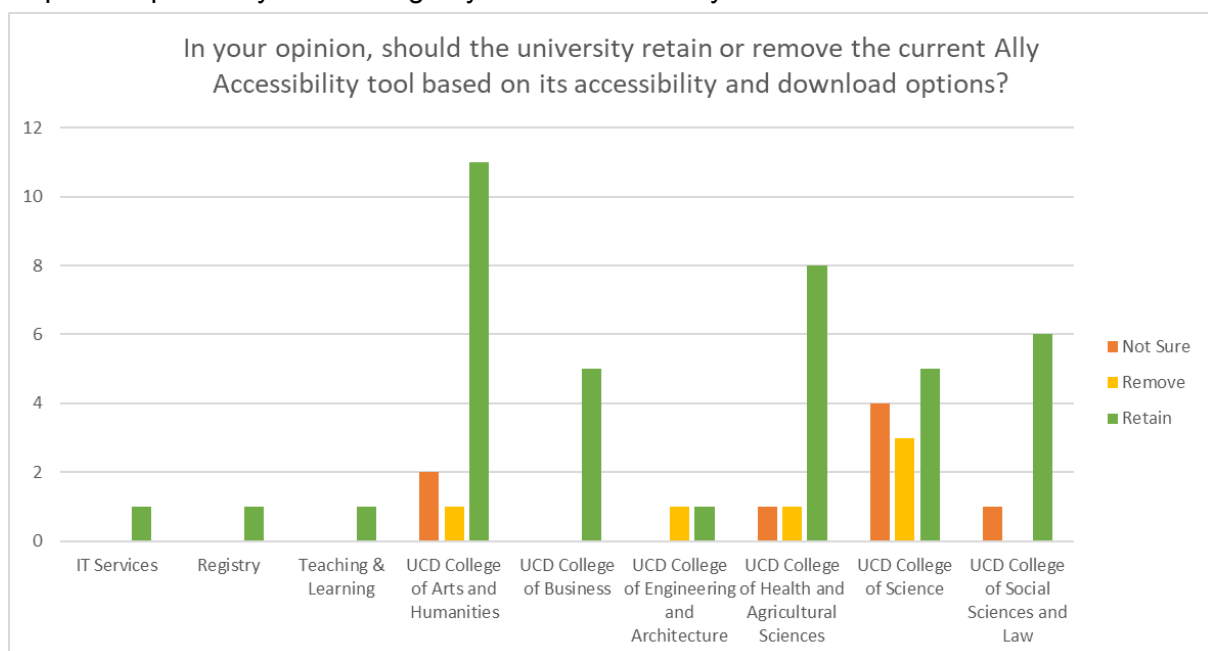


Chart 5: provides an overview of the breakdown of response to the question - should the university retain or remove the current accessibility tool based on its accessibility and download options by college.

In terms of where individuals voted to remove Ally, we can see where individuals feel it cannot be utilised within their own subject areas due to issues experienced such as

“Ally score is useless - no concrete tips for improvements made for LaTeX users”

And

“inaccessible pdfs. Unfortunately as it only helps fix word docs and not latex pdfs it is of limited use to me in fixing my content.”

It is noted that Ally may not support all formats however there are mechanisms and workflows in place that may be able to support individuals using these subject-specific tools to develop more accessible content. LaTeX is also part of the Ally roadmap, and we will hopefully see more in this space in the coming months to support colleagues who use these tools.

An important facet to note is that LaTeX markdown is an area of emerging research in terms of digital accessibility. At a macro level LaTeX is innately inaccessible in that PDF exports of LaTeX files are 'untagged'. This means that it cannot be 'read' by screen readers or read aloud technologies. It also does not have the digital structure required to be converted by Ally into alternative formats. The global LaTeX Project hopes to have the first phase of its tagging pilot completed by 2024. In the interim UCD ALL have offered accessibility solutions for faculty in scientific disciplines including technologies to convert to MathML, which can be read by screen readers. This is a well-documented accessibility challenge across the sector and extends beyond the functionality of Ally.

Largely, the response to retain Ally as the University Accessibility Solution within the VLE are widely positive with some respondents indicating that the introduction of Ally has benefited not just their working practice but their students' learning experience:

“I have learned how to make materials more accessible from using Ally so will probably continue to do so even if UCD chooses not to retain it. However, it is important tool for showing students that UCD is committed to widening participation and ensuring materials are accessible”

Others noted that should Ally not be retained that learning they have implemented may revert over time

“I think it serves teachers as a quite visible line of defence against inaccessibility. I also think few of my colleagues use it, but for me I would be afraid that the improvements in my practice would slip over time.”

“Ally works very well as an immediate means of checking the accessibility of documents. During busy periods, I can easily forget the small steps that make a big difference to accessibility, and Ally immediately alerts me to this and I can redress the problems before making the document available to students.”

“I have invested a significant amount of time over the last two academic years trying to make my materials more accessible overall. Prior to this I genuinely didn't realise that the formats I was providing were not fully accessible to all students as I had not received any comments or complaints, so for me it was useful to know that I needed to reflect on and change aspects of my process.”

Overall from those who responded to the survey we have largely positive feedback for Ally and the important role it plays in supporting students' learning preferences but also in

creating awareness of accessibility standards and clear guidelines for how to improve on this for instructors. From staff the overall sentiment would appear positive, while noting that there are some barriers to use for some individuals and further consideration should be given to how these might be supported should the University retain Ally.

Students

A workshop was organised to gain student feedback on Ally, however the number of attendees was very limited and the results from the workshop did not provide any real insights into ALLY. Both students were new to the University in 2023/24 and neither were fully aware of the system as a distinct and separate component to Brightspace. This can be taken as a positive as it means that students new to the University see Ally as a standard feature of the VLE, however neither student explicitly mentioned this.

One student did mention that they commuted to college each day for over an hour and a half and often found it difficult to study using their laptop on buses, however now that they are aware of the different formats available to them, they felt this would be of great benefit in terms of being able to download learning materials to their phone or tablet and take notes on the likes of the ePub or HTML formats.

In order to gain further insights into the student perception of Ally a short survey was circulated, however again the number of respondents was very limited, with only 4 respondents. However the feedback received from one individual in particular shows the importance of Ally for students who said.

“I would be devastated with the loss as it really helps my learning”.

We have seen an increase in usage from students year on year. Students are engaging with alternative formats to enhance their learning and engaging with their learning material in formats that are better supported on the likes of their mobile devices. We can see from the data that Ally is being used by students across almost 5,000 modules annually to engage with their learning material and this shows the broad impact that Ally has had for all students, and not just those who have declared accessibility requirements or a disability. We also can see in 2022/23 the usage and conversation rate where students engage with the Alternative formats are just over 10,500 students which is over one third of the overall student population engaging with the alternative formats available in Brightspace.

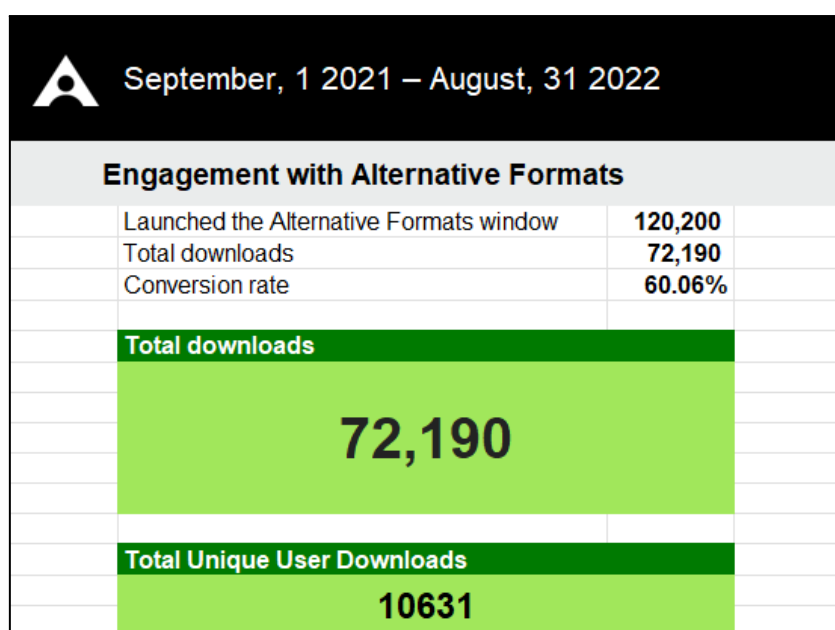


Chart 6: provides an overview of the student downloads within Ally for the academic year 2021/22 showing over ten thousand unique student downloads.

Overall, while student engagement in terms of the workshop and survey didn't prove overly beneficial in terms of understanding student perspectives relating to Ally, the usage data shows us that students are using the alternative formats provided by Ally and that as this becomes more socialised in the University we continue to see a growth in the usage of alternative formats, which may also be attributed to the continued increase in accessible learning material being provided by lecturers so the downloaded formats are easier for students to use.

Efforts to support student awareness and use of Ally introduced in 2023/2024 include a weekly Assistive Technology Workshop which is offered to every student engaging with disability support services, as well as mainstreamed hybrid workshops on "Educational Technologies to Support your Studies". These workshops have been well attended and received with students observing that the integrated nature of the alternative formats tool makes it quick and easy for them to access their learning materials in a way that works for them. Regarding Immersive Reader a student emailed to say *"Thank you! I actually spent a lot of time last week trying to find an affordable and effective way to do this!"* Similarly, a student with a visual impairment who had previously struggled with digital literacy and individualised assistive technologies noted that the direct conversions available in Ally were a *"game-changer"*. This is a well-documented phenomenon in assistive and educational technology engagement and retention among third level students with research demonstrating that the 'mainstreaming' of these tools not only enhances the wellbeing and psychosocial outcomes for students with disabilities who are reliant on assistive technologies, but the academic outcomes for all students (McNicholl A. et al, 2020 / 2021, Seale, J. 2017).

Beyond direct student engagement, work is ongoing to raise awareness of digital accessibility supports among student support professionals. UCD's Ally programme has been used as a case study on good practice for Multiple Means of Representation in the

National Teaching and Learning Forum's new digital badge in Universal Design for Student Support. Similarly, workshops have been delivered for UCD student advisers and support persons on how students can use Ally throughout their studies. This has been particularly well-received in the context of an increasing number of students who are waiting on / seeking out ADHD / ASD diagnoses and who are therefore ineligible for formal disability supports as per HEA guidelines, and students who are time-poor due to financial challenges and the impact of the housing crisis around longer commutes.

Legal Requirements

As of 2020, the University as a public sector institution is expected to comply with the requirements of the [EU Web Accessibility Directive](#). Broadly speaking, the purpose of web accessibility is to ensure that all individuals, including those with disabilities or specific needs, can access digital content such as web pages, apps, and internal digital systems, in an equitable manner, regardless of use of assistive technologies or device choice. These standards apply to content hosted on the University VLE, Brightspace.

Unlike other fields of EDI legislation where there may be aspects of ambiguity, Web Accessibility compliance is measurable and can be determined by manual accessibility testing. [A set of standards have been laid out for the procurement, implementation and maintenance of digital systems within public sector bodies](#). These correspond to AA¹ compliance with the [Web Content Accessibility Guidelines 2.1](#). These are the global web accessibility standards and are the criteria used by Ally's algorithm.

Oversight of web accessibility compliance in Ireland sits with the National Disability Authority. They hold responsibility for accessibility testing of public sector digital content and have already engaged with UCD websites as part of their [audit process](#). As such, active monitoring, reporting and training around web accessibility needs to become a part of everyday University life. Automated real-time reporting tools such as Ally for Brightspace and Silktide for Terminal 4 are essential for monitoring the high volume of ever-changing content in an organisation as large as UCD. They are also integral for ensuring that all those with editing permissions are aware of their legislative responsibilities around accessible content creation.

Beyond the digital standards laid out in the legislation, the University is also required to:

- Produce and maintain an accessibility statement detailing areas of non-compliance, providing reasons for this, and documenting steps to address these issues. They should offer a channel for requesting alternative formats and offering feedback on accessibility.
- Ensure staff awareness of web accessibility and provide suitable training to facilitate this.

¹ There are different levels of compliance available with AAA being the highest standards and including 28 additional criteria that address video content and mobile devices. AA is functional and what we as a University have to meet.

Addressing accessibility statements, it is important to stress that these are living documents. As digital content is updated and changed, this should be reflected in accessibility reporting. Given the vast array of module content hosted on Brightspace alongside the number of individuals with editing permissions, it is neither practical nor sustainable for manual audits to be carried out with the consistency required to comply with the legislation and to update accessibility statements. As such, reporting tools such as Ally offer a practical way of tracking daily changes and demonstrate the University's sustained commitment to digital accessibility in a tangible way.

The level of data reporting provided by Ally allows a central view of the university's digital accessibility compliance within teaching and learning. This has been used to scaffold supports around the Directive's other requirements, namely staff awareness and training. To date data has been used to:

- Advocate for changes to T&L practices within individual Colleges - for example a reduced use of inaccessible PDFs within Arts & Humanities.
- Provide bespoke training workshops in individual Schools, for instance sessions for Nursing, Midwifery and Health Sciences addressing alternative text for anatomical diagrams, and accessible data visualisation for the College of Science.
- Inform reporting on Widening Participation initiatives within individual Colleges.
- Support 2023 Global Accessibility Awareness day, including a week-long social media campaign in which faculty and staff made a "Plus One Promise" to improve their digital practices, lunch-time lightning talks, a day of workshops, and a hackathon-style event in which UCD competed in Ally's "Fix Your Content" day and placed 4th in Europe and the Middle East.

Beyond the Web Accessibility Directive, it is important to acknowledge the University's responsibility in relation to other EDI legislation, including the Equal Status Acts, which prevent discrimination in accessing education including educational facilities and services such as educational technologies, and the UN Convention on Rights of Persons with Disabilities, Article 9 g, "Accessibility: To promote access for persons with disabilities to new information and communications technologies and systems, including the Internet."

Recommendation

From the report and staff and student feedback and figures, it is clear that the addition of Ally within the VLE has had a largely positive impact. As such, and in line with the feedback received, the recommendation is that the University retains Ally and further cements having a digital accessibility tool embedded within the service offering of the University.

When discussing options with the UCD Procurement Office, they suggested that aligning the procurement of integrated services with Brightspace, should follow a similar procurement model to that of the VLE and that pricing should be sought for different lengths of contract. Pricing was sought for a single year, a three year contract with the possibility to extend for two additional years and a five year contract with the possibility to extend for two additional years (as was the case with the VLE).

As you would expect, the option for the five year contract provides the best pricing model and it is recommended that the University would sign up to this five year contract to provide stability to different University stakeholders in relation to accessibility and support over the coming years. It also provides time for competitors within this space to catch up with Anthology in terms of the service delivery and offering in this space, where there currently is only one competitor (YuJa - who we use for our Enterprise Video Management) however their offering does not follow the same methodology in terms of accessibility requirements to Ally and was felt that it was a product to review in another number of years and to continue to monitor whilst the relationship remains there with YuJa.