

Checking for Accessibility

How Microsoft education solutions compare with Google offerings in making learning accessible for all.



Executive Summary

One of the effects of the pandemic on K-12 education has been to underscore a fact that we already knew: *accessible solutions are not merely a nice-to-have option, but are, in fact, a must have component of any technology solution.* As more and more educators have flipped their instructional approaches to meet the needs of blended and hybrid learning, the result has been an increase in the amount of teacher-generated content as well as a greater reliance on open education resources, or OERs. Regardless of the source of the curriculum – a traditional publisher, OER, or educator-created – schools need to ensure all these meet compliance regulations and are accessible to all learners.

But what do we mean when we talk about accessibility?

“**Educational materials and technologies are accessible to people with disabilities if they are able to acquire the same information, engage in the same interactions, and enjoy the same services as people who do not have disabilities.**”

— [National Center on Accessible Educational Materials](#)

More Accessible Materials are Better for All Learners

One example of how this accessibility requirement can be put into practice to benefit all students and educators is in the ability of typical productivity and content creation applications to check to make sure the materials that are being created are accessible for all users. Microsoft 365* applications include built-in features to check accessibility that can be used whether the user is online or offline.

When testing a sample K-12 education PowerPoint* slide that includes text, images, and animations, checking accessibility only takes one step. Moreover, this feature works identically whether the user is online or offline.

By comparison, to conduct a similar test on Google Slides*, the process takes significantly more time and effort – 6 times the number of mouse clicks - and the results are less detailed with fewer suggestions to make the content more accessible.

Key Findings

1. If a student, educator, or IT admin hasn't already setup the required Google Slides add-on, it can take up to 12 different steps to conduct a similar accessibility check that only requires two steps in PowerPoint;
2. The most popular third-party Google Chrome* browser extension requires users to allow access to all of their Google Slide presentations (and terms of use that suggest a possible fee-for-use in the future);
3. The results of the Google extension provide less information and feedback than the Microsoft Accessibility Checker. For example, the Microsoft solution can generate a description for the Alt Text of an image while the extension does not; and,
4. The Chrome browser extension does not work at all when the user is offline.

For students and educators alike, first-part solutions like those from Microsoft provide better results, save time, and don't rely on unknown third-party developers to provide support for all learners.



Rationale

Accessibility is an Obligation, not Just an Option

With over 7.5 million students in the U.S. on Individualized Education Plans (IEPs) and many more needing adaptations to support learning disabilities, it has been estimated by the Department of Education that 25% of the U.S. student population needs some level of support to make learning more accessible.¹

Microsoft Office* applications include built-in features to check accessibility that can be used whether the user is online or offline.

In the U.S. there are a number of federal laws that require accessible technology solutions to ensure students with disabilities have equal access to public school education.² These include:

- [Individuals with Disabilities Act \(IDEA\)](#)
- [Section 504](#) and [Section 508](#) of the [Rehabilitation Act of 1973](#)
- [Title II](#) of the [Americans with Disabilities Act](#)

Numerous school districts³ and universities⁴ have been subject to lawsuits over alleged failure to comply with these regulations. In summary, these laws mandate that every child is entitled to an equal education and any necessary accommodations at their school if they have a disability. And, therefore, schools are required to make activities accessible to students with disabilities and make accommodations when requested.

¹ Source: [National Center for Education Statistics](#)

² Source: [Cielo24](#)

³ Source: [Audioeye](#)

⁴ Source: [University of Minnesota](#)

Open Educational Resources

The past ten years have seen an enormous uptick in the use of Open Education Resources (OERs) by school districts large and small. With the increase in the cost of textbooks – one estimate suggests a 90% increase since 1998⁵ – more and more K-12 schools and universities are turning OERs. OERs are typically free (or very low-cost) curricular materials or textbooks made available under a [Creative Commons](#) license. This allows free and fair use by educational institutions so long as they don't profit from the materials. Some of the most common OER providers include [Curriki](#), [OER Commons](#), and [EDSITEment](#). However, just because content is open doesn't mean it is accessible.

Many OERs include content in the form of PDFs or Word documents as well as images, videos, podcasts and other multimedia. It is up to the individual school to ensure that the content as well as the platform is accessible to all students. The result has been a growing number of toolkits such as this one from the [City University of New York](#) which include accessibility best practices, templates, and other guides to help educators create or adapt materials so they are accessible to all.



⁵ Source: [American Enterprise Institute](#)



Learning Scenario

Ensuring OER Resources are Accessible to All Learners

The following scenario provides a step-by-step description of the process a typical middle school educator would have to go through to ensure that an OER presentation from the [OER Commons](#) about photosynthesis is accessible to all students. For comparison, we used a Microsoft PowerPoint and identical Google Slide version of the presentation to check for accessibility.

At a Glance

Topic

Photosynthesis

Subject

Life Science, Biology

Grade Level

7th–8th grade

Accommodation

Ensure content, images, and video are accessible to all students

Step-by-step Comparison

Test Devices

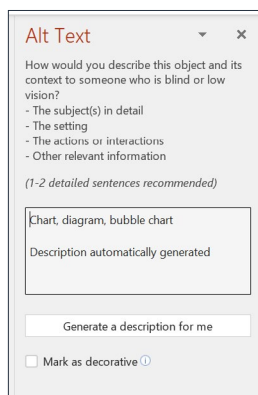
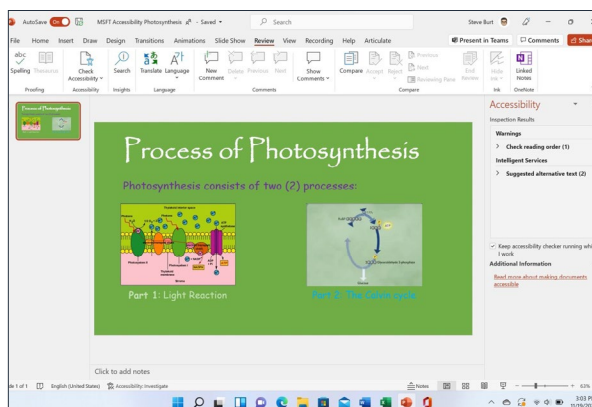
In conducting this comparison, the K-12 Blueprint team tested the following devices and configuration:

- **Microsoft Surface Go 2** running Windows 11 version 22000.258
- **ASUS* C302C Chromebook** running Chrome OS version 91.0.4472

Checking for Accessibility using Microsoft PowerPoint

Online Access

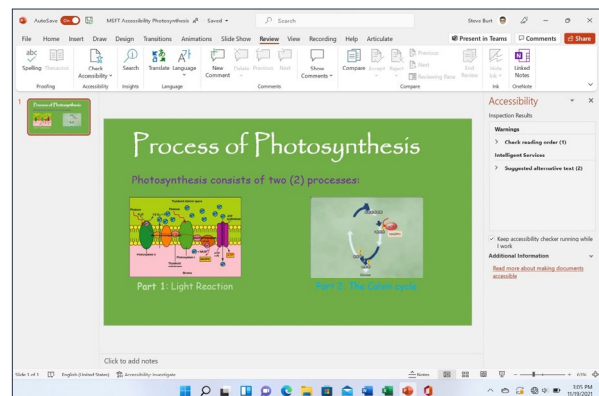
1. **Open the presentation** in Microsoft PowerPoint.
2. Select **Review > Check Accessibility** from the ribbon.



3. **Review the results** and adjust the presentation, as necessary. The Accessibility Checker can also generate suggested alternate text.

Offline Access

1. **Disconnect the device** from the internet.
2. Select **Review > Check Accessibility** from the ribbon.

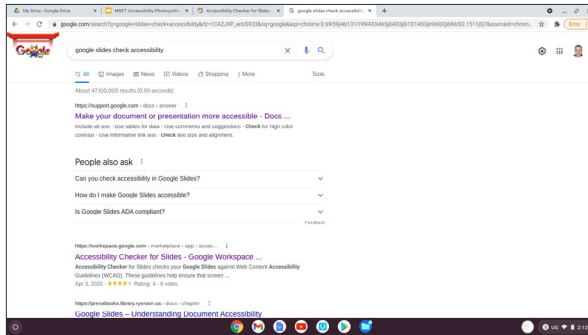


3. **Review the results** and adjust the presentation, as necessary.

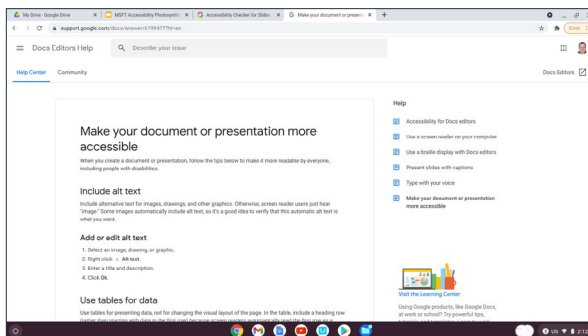
Checking for Accessibility using Google Slides

Online Access

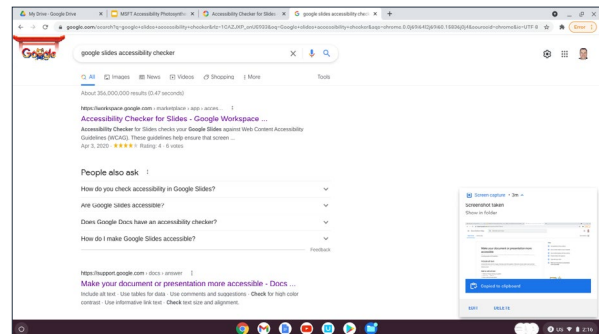
1. Open the presentation using Google Slides.
2. There is no native accessibility tool in Google Slides, so use Google search to find an alternative. Visit Google.com and search for "Google slides check accessibility".



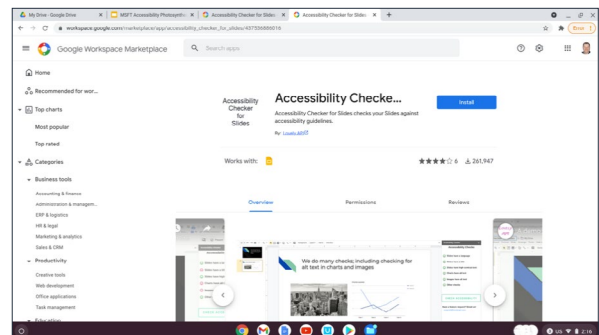
3. Review the support document provided by Google. It suggests a series of steps a user can take including adding alt text, tables, the comments and suggestions feature and high-color contrast.



4. Since the support document from Google doesn't provide any specific steps or recommendations for Google Slides, the typical next step would be to search for a Chrome Extension. So, search for "Google slides accessibility checker".

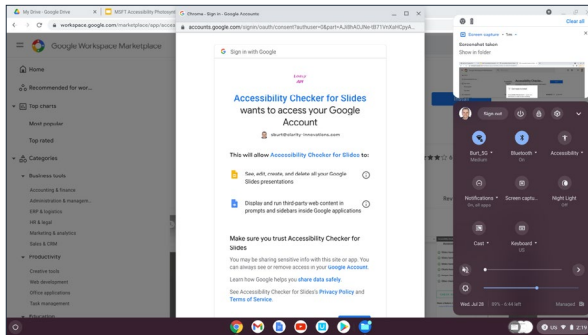


5. The first search result includes a link the Accessibility Checker extension from a third-party named Lovely API.

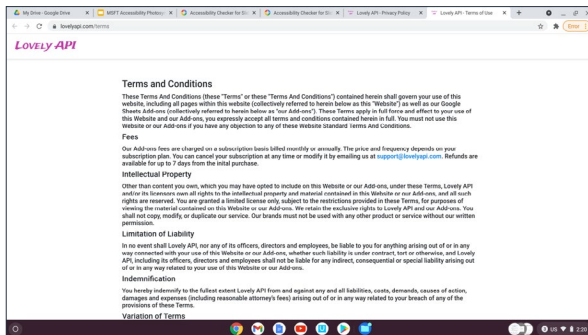


6. Select Install and then Continue.

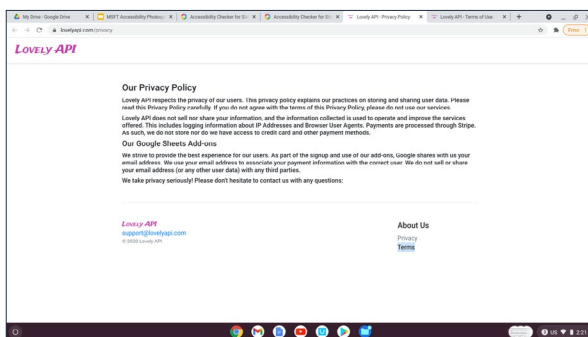
Note: this extension asks for permission to install. Specifically, it wants to be able to see, edit, create, and delete all your Google Slide presentations and display and run third-party web content



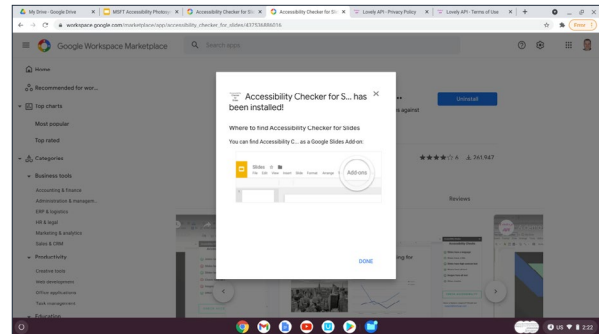
7. When viewing the Terms and Conditions from Lovely API, it notes that there may be fees associated with this Add On.



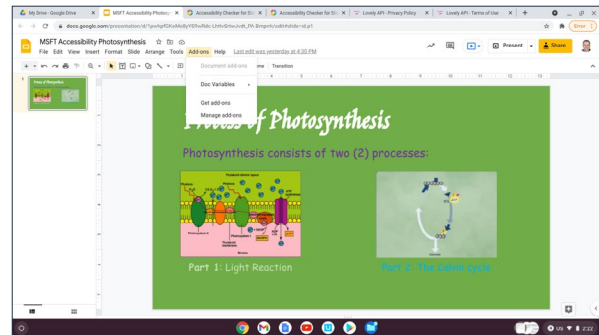
8. The Privacy Policy is very brief.



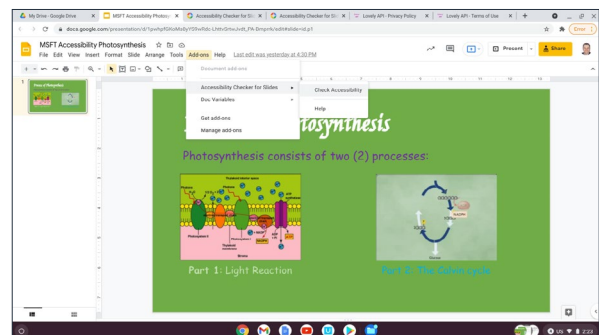
9. After selecting Install, the Add-on has been added to G Slides



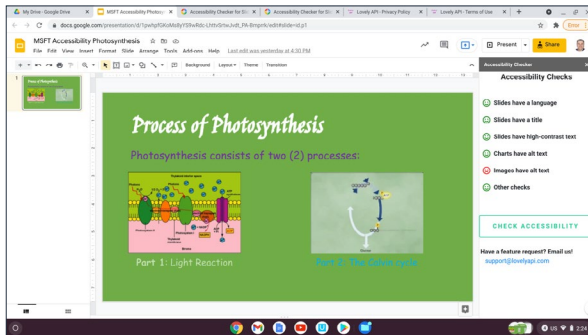
10. Then, return to the Google Slide and look for the Accessibility Checker add-on. It is not there.



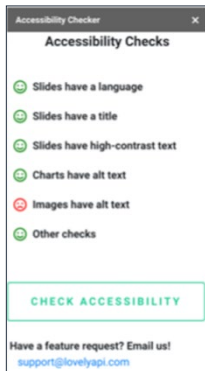
11. Refresh the browser and it shows up. Then, select Check Accessibility.



12. The results indicate one issue: *add Alt Text to the images.*

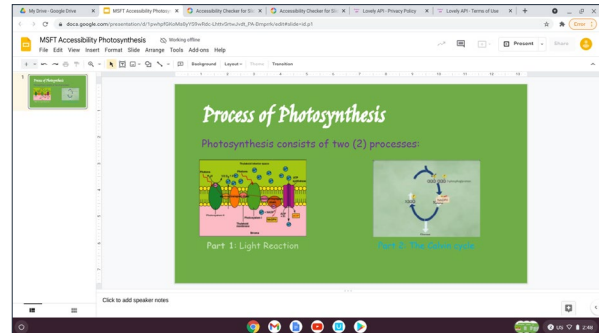


13. None of the text in the accessibility check sidebar is clickable to find additional information or recommendations.

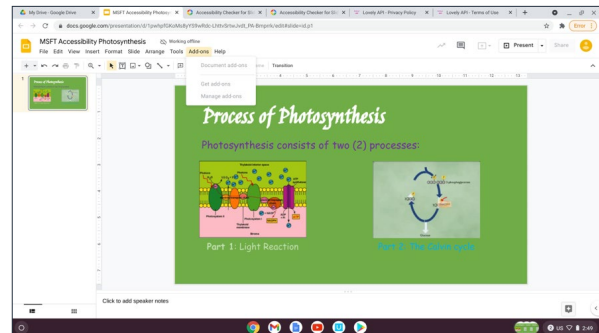


Offline Access

1. **Disconnect the Chromebook** from the internet.
2. **Refresh the browser** to confirm the G Slide presentation still displays (and offline access is turned on).



3. **Check accessibility using Add-ons > Accessibility Checker.** It is not available when offline.



Conclusion

Built-in Microsoft Education Solutions Save Time and Return Better Results

With nearly a single click (actually three), students, educators, and administrators can check their presentations (along with documents and spreadsheets) to help make sure the content is easy for people of all abilities to read and edit using the built-in, first-party capabilities of Microsoft 365 solutions. This includes checking color contrast, alternate text for images, and ensuring content will work for a screen reader as well as providing recommendations to address any issues. The Google Workspaces for Education equivalent, Google Slides, requires installing a third party add-ons that can take more time, more IT involvement, and potential pose data security risks.

	Microsoft Power-Point (online)	Microsoft Power-Point (offline)	Google Slides with Lovely API Extension (online)	Google Slides with Lovely API (offline)
Number of Mouse Clicks to Return Results	2	2	12	Not available when offline
Sample Results (e.g., accessibility recommendations)	Feedback includes reading order, alternative text, and links to learn more.	Same as when online.	The only feedback provided is to add alt text to images.	N/A

Given the increase in use of open education resources or even teacher- and student-created content, various federal laws and requirements, the choice is clear: Microsoft education solutions such as the Accessibility Checker found in Word, Excel, PowerPoint, and OneNote, not only save users time (2 clicks of the mouse instead of 12), suggest alt text to speed up the process of making files accessible to all, and work both online and offline making them a better choice to support learners anytime and anywhere.