

Resource Kit for Students

Key excerpts from a report by the Xavier's Resource Centre for the Visually Challenged (XRCVC)

There may be some concerns or queries regarding accessing the online material for the various courses in the upcoming semester. This document provides some tools and software which are extremely helpful. Explore these options and let us know how CDAP could be of help to you. We can help you in getting familiar to these tools and provide more, as need be. The tools here will not only help in accessing the material but also be helpful in submitting assignments and reports. The following description will help you navigate the document better.

Technical Steps for Ensuring Accessibility of e-Content

Identification of File as Text PDF or Image PDF

(Page 15 in XRCVC Resource Kit)

It is essential that a PDF is saved properly else a Screen Reader might read it merely as an image and the document be will inaccessible to a visually impaired student.

Use of Dictation Software

Dictation software helps people who suffer from carpal tunnel syndrome, those who experience pain in their hands while typing, and even those with dysgraphia, dyslexia, visual impairments and physical disabilities. Students can make use of this facility to have their notes typed out in case they are not too comfortable with the use of the keyboard. May also be used for submitting reports or assignments.

Voice Typing in Google Docs (Page 17 in XRCVC Resource Kit)

Microsoft Dictation (Page 22 in XRCVC Resource Kit)

Converting Word Files to PDF Files: Use of Save As Option

(Page 23 in XRCVC Resource Kit)

Use of Accessibility Checker in Microsoft and PDF

Running the Accessibility Checker in Microsoft Word is an **essential step in ensuring a document is fully accessible.** Using the Accessibility Checker, you can see what elements of your document need attention to make them accessible to all users.

(Page 39 in XRCVC Resource Kit)

Accessibility Checker in Older Version Microsoft Word (2010, 2013)

(Page 40 in XRCVC Resource Kit)

Accessibility Checker in Acrobat Reader DC Pro (PDF)

(Page 41 in XRCVC Resource Kit)

Tools for Visually Challenged

Use of OCR Software for Converting Non-Accessible content to Accessible Formats

Optical Character Recognition (OCR) is needed if the content available is not accessible such as in the case of images, image-based PDFs etc.

How to convert files with Google Docs (Page 26 in XRCVC Resource Kit)

How to use RoboBraille (Page 29 in XRCVC Resource Kit)

How to use Kibo application (Page 32 in XRCVC Resource Kit)

How to Insert Image Description (Page 57 in XRCVC Resource Kit)

After adding the description of an image, information about the image can be accessed using a screen reader. See details for inserting the image description in Microsoft word.

Volume variation of the screen reader & applications

(Page 75 in XRCVC Resource Kit)

Use of virtual desktops

(Page 76 in XRCVC Resource Kit)

Starting Browser Magnification

(Page 77 in XRCVC Resource Kit)

Using Chrome extension for colour contrast

(Page 77 in XRCVC Resource Kit)

Use of windows inbuilt magnifier

(Page 80 in XRCVC Resource Kit)

Tools for Hearing Impaired

How to Search for CC (Closed Caption) Option Videos

(Page 60 - 63 in XRCVC Resource Kit)

Videos that have Closed captioning (CC) and subtitling display text on a video screen or other visual display.

Creating Closed Captions for Videos

(Page 64 - 74 in XRCVC Resource Kit)

How to Generate Audio/ Video Transcript from **Otter** (Page 64 - 65)

How to Generate Transcript with **Google Docs** (Page 65 – 68)

This voice typing feature is only available in some browsers. (As per Google) .

How to Use **Veed.io** to generate CC (Closed Caption / Transcript / Subtitle) (Page 69 - 74)

Use of OTTER with Zoom for Closed Captioning (CC)

(Page 81 in XRCVC Resource Kit)

Use of Google Meet for Closed Captioning (CC)

(Page 85 in XRCVC Resource Kit)

Use of Microsoft Team for Closed Captioning (CC)

(Page 89 in XRCVC Resource Kit)

Live CC (Closed Captions) in Presentations

(Page 91 in XRCVC Resource Kit)



RESOURCE KIT FOR EDUCATORS

St. Xavier's College (Autonomous), Mumbai

Xavier's Resource Centre for the Visually Challenged (XRCVC)

In collaboration with

IQAC

Organized

National Level Online Workshop

Making Online Learning Inclusive for Students with Disabilities
A Skill-building workshop for Teachers of Higher Education

On

23rd & 24th June 2020 (10 a.m. - 12 Noon)

About the Workshop

COVID-19 has pushed the education ecosystem into unchartered areas. Online Education and Learning have many new opportunities and at the same time pose many challenges. One such challenge is that of inclusion and accessibility for Students with Disabilities (SwDs). With the Rights of Persons with Disabilities Act (2016), all higher education institutes in India have been mandated with a 5% reservation for students with disabilities and ensuring inclusive education. Whilst many of the higher education institutes have started putting systems and processes in place to make education inclusive, continuing this in the online mode poses new challenges. What worked for inclusion in physical classrooms may not work for online classrooms. The 2-day workshop aimed to:

- Acquaint participants to the challenges of inclusion for online learning.
- Equip participants with pedagogical strategies to make online classrooms inclusive.
- Orient and equip participants on the 'how to' of making online learning content accessible.
- Familiarize the participants with the use of accessibility features of online meeting platforms and assistive technologies to build accessibility to online learning.

Outcome:

Participants would carry back with them at least 4-5 key simple and implementable ideas to make online learning more inclusive and accessible for students with disabilities.

About the Resource Kit

The Resource Kit is an attempt to put together the information shared at the workshop in an easy-to-use format by its participants as also others who may not have gotten a chance to attend the workshop. The Kit's compilation is a mixture of what was presented at the workshop and some additional inputs.

The Resource Kit aims to be a quick implementable guide for teachers and educators who wish to make online learning inclusive for all including students with disabilities.

About XRCVC, St. Xavier's College, Mumbai

The Xavier's Resource Centre for the Visually Challenged (XRCVC) is a department of St. Xavier's College, Mumbai. The XRCVC is a resource and advocacy centre for persons with disabilities in general, and blindness and low vision in particular. The XRCVC is engaged in a wide range of work in the fields of education, assistive technologies, awareness, and advocacy to work towards breaking barriers and creating access for persons with disabilities. To know more about the XRCVC's work, visit www.xrcvc.org

For any query or to organize trainings for your teachers or students, feel free to reach out to us at –
sam@xrcvc.org

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PART A: CHALLENGES OF ONLINE LEARNING

1. What are the Challenges for Students with Disabilities?

Online learning poses several challenges to all. For Students with Disabilities (SwDs), in addition to the challenges of

- lack of availability of computers/laptops/phones to connect with, and
- lack of internet

is the additional and most crucial challenge of

- lack of accessibility.

In India, the Rights of Persons with Disabilities Act (2016) not only reserves 5% seats in higher education for SwDs but also mandates the need for inclusive education.

Thus, creating accessibility for online learning is an imperative and not a choice.

2. What are the Challenges in Building Inclusive Education in the Online Learning Mode?

Some of the key challenges in facilitating inclusion at higher education include the following:

► No Physical Resource/Support Centres

In the online mode, resource centres, through which inclusive education services are often rendered, will remain shut.

- **Lack of accessible content:** This is likely to turn out to be the biggest challenge. With online learning largely dependent on self-learning and reading – lack of availability of reading material in accessible formats will create a big divide. When educational content is shared in forms of images of books, images of handwritten material, it remains completely inaccessible. Further, a lot of the 3rd party learning material is inaccessible. (Websites and Applications need to meet accessibility standards as per Web Content Accessibility Guidelines (WCAG) 2.1 (<https://www.w3.org/WAI/standards-guidelines/wcag/>). An auto-check for accessibility tools is also available - <https://www.w3.org/WAI/ER/tools/>)
- **Lack of devices & internet connection:** Disability remains a low socio-economic issue in India, and hence, many SwDs access assistive technologies through resource centres. With those being shut, access to devices and assistive technologies will reduce.

► No Peer Support In Class

Many times, especially in India with large student-teacher ratios, the inaccessible aspects of the classrooms are rendered accessible by peers and friends co-sharing a bench, or perhaps, before or after class. A student with blindness oftentimes relies on their bench mate to read out content on the blackboard. A student with learning disability relies on the notes of the bench mate to read and complete work. This peer support is difficult to garner in the online mode.

► **Online Class Participation**

The strategies used by SwDs to participate in physical classrooms may not work in the online mode. Multi-tasking with Assistive Technologies and Screen readers whilst listening into the speaker/presenter on the computer as well will add to difficulty. For students with hearing impairment, internet lags, sound frequency issues may pose challenges to both lip reading as also using residual sound.

► **Not All SwDs Will Be Assistive Technology (AT) Savvy**

Not all SwDs are AT savvy, just as not all students are computer savvy. SwDs who are more in need of or dependent on human support will find online learning more challenging.

PART B: MAKING ONLINE LEARNING ACCESSIBLE

Making online learning accessible needs to be looked at in the following three levels. Specific interventions for each are listed in the subsequent sections.

1. How to Make Online Pedagogy Accessible
2. How to Make Online E-learning Content Accessible
3. How to Use Accessibility Features of Online Meeting Platforms & Assistive Technologies to Facilitate Inclusion in Online Classrooms

1. How To Make Online Pedagogy Inclusive

Key Principle: Universal Design for Learning to guide designing and delivery of education as against Accessible Design

Universal Design for Learning, also referred to as UDL, refers to design of instruction to meet the needs of a diverse mix of learners. The principle of “accessible design” on the other hand presupposes difficulties for a particular group of learners and attempts to address them at the initial design phase or to modify an existing design in order to accommodate the particular disability experienced by that group.

When the approach to design is located in UDL, the final output is better for all and it requires less retrofitting.

Pedagogical Interventions for making online learning inclusive is being looked at within three parts

- i. Interventions at the level of teaching
- ii. Managing submissions, exams, online tests etc.
- iii. Administrative and out-of-class support

i. Interventions at the level of teaching

a. Before starting a session:

- Verify familiarity and comfort with online learning platforms - Refer them to resource centres such as the XRCVC (www.xrcvc.org) in case the students need such training.
- For students with Hearing Impairment, check if they can hear the audio, or else use Closed Captioning (CC), transcripts of videos, speech to text options etc.
- Check for: Broadband and internet speed connections and stability to determine if the student will be able to join in Real time v/s Need for Recording

b. Availability of content:

- Access to content prior to class is critical.
- Sharing PPTs and recordings are a must immediately after class.
- Indicate compulsory texts / required reading list from the complete list. In situations where students may not have accessible content, making the list limited will ensure adequate use of limited time and resources for conversion at the student level.

c. Online class hygiene rules:

- All the general rules for online class hygiene rules aid accessibility as well (Universal Design for Learning)
- Set interaction rules before class starts e.g. No chat messages whilst speaking is on; questions only by appropriate use of relevant options such as Raise Hand in Zoom etc.)

d. Speaking rules:

- Speak directly, slowly, and clearly into the microphone.
- Only one speaker should talk at a time.
- All speakers must avoid locations with background noise.
- Each participant to state their name before they speak.

(Aids Closed Captions quality, students with attention deficit, students with blindness etc.)

e. Delivery style:

- Have adequate pauses.

- Recap key points between sections

(Enables participants using captions/ sign language interpreters to catch up)

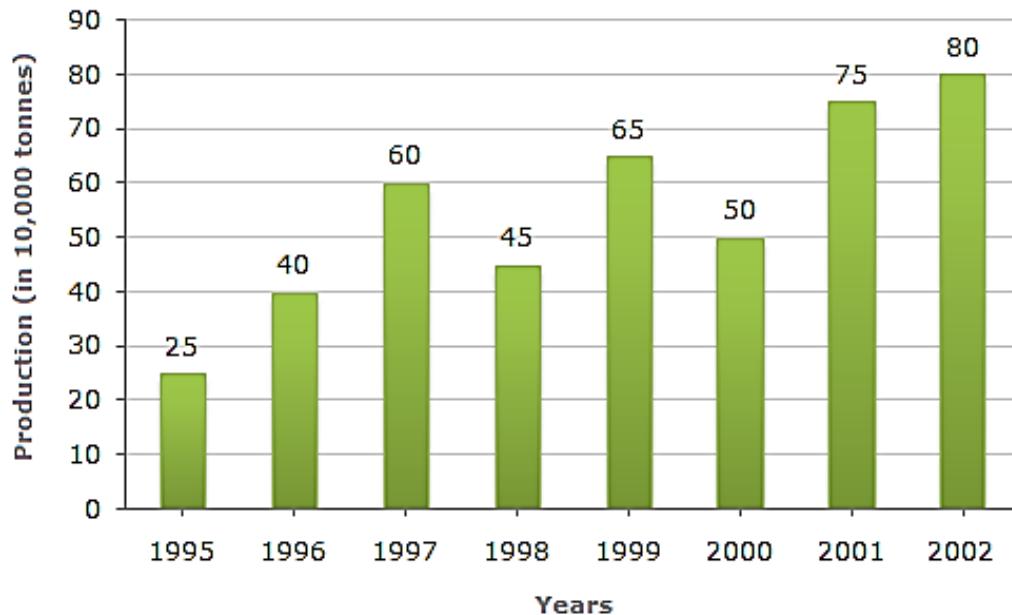
- Keep instructions brief and uncomplicated as much as possible.
- When repeating instructions, repeat exactly without paraphrasing.

(Aids students with attention deficit and others as well)

f. Verbalization of content:

- Verbalize all key information and actions.
- Avoid saying "click here" or "This chart" or "that picture".
- Reading out the PPT whilst conducting the class is a must for the teacher.
- Read any printed information and describe any charts or graphs being used.

Presented below is an example of a chart description during a live session:

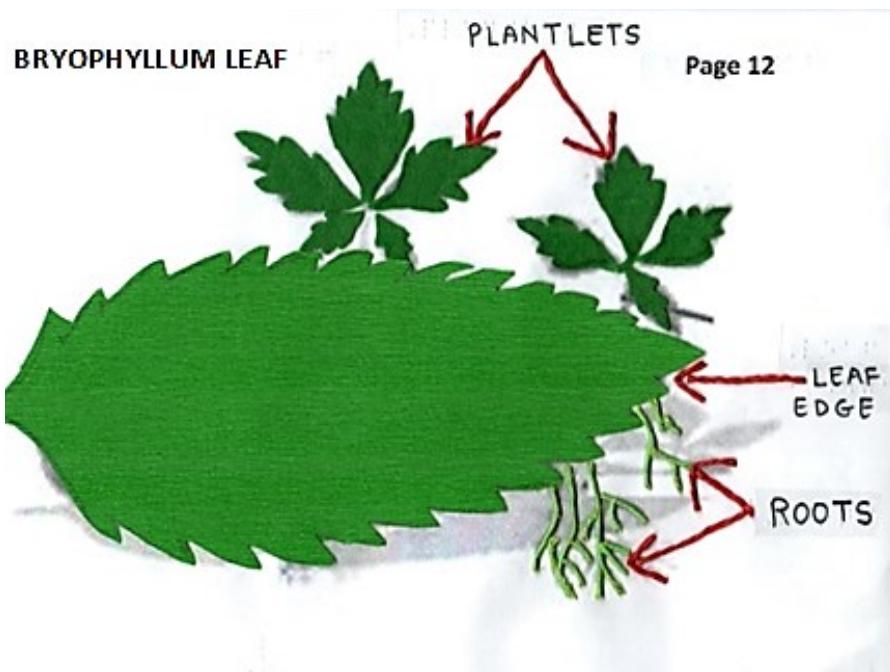


For the above graph, instead of saying, "Look, the last bar has the highest production figures." It would be desirable to state, "As you can see in this bar graph, with information from 1995 to 2002, the year 2002 has the highest production figures at 80."

The latter conveys the visual information verbally rather than needing the student to depend only on sight.

g. Facilitating student participation:

- Class buddy to clarify doubts and note taking
(Aids Screen Reader lags, CC errors/No CC)
- Buddy/ Teaching Assistant can share notes post lectures or share a common Google Docs file during class which the student with disability has access to as well.
- Explaining visual concepts to students with blindness: This is usually done through Tactile Diagrams (TDs) or Models such as this (image below). The visual components of the images are raised and marked through tactile elements and Braille labelling.



In the absence of real-time tactile aids like these, visual elements of the online classroom can be made accessible through the following:

- Disability Resource Centre or volunteer making TDs and sending them to the student's home.
- Disability Resource Centre conducting a training in creation of TDs for a family member.
- Student Buddy connecting via a post-class online session with a local family member who can demonstrate the concept to the student by tracing over their hand.
- Detailed image description provided by teachers

ii. Managing submissions, exams, online tests etc.

a. Whilst giving homework:

- Do not give images of books or images of handwritten material.
- Do not show images of questions on the screen & ask students to mark the assignment in their respective books.
- Dictate questions or read out specific question numbers.
- Be open to receiving student submissions as either recordings or typed material.

b. Online polls/MCQs:

- If you are creating online tests or forms, use Google Forms to create the tests.
- If you are using any other 3rd party application, first check if the same is accessible or not.
- If you are protecting your Google Forms or any other tests with the use of CAPTCHA, ensure you use both Audio and Visual captcha as using only one type will make it inaccessible for students with blindness or hearing impairment.

c. Open book exams:

- Open book exams can only be planned if reading material is available in accessible formats.

- Further, open book exams may also pose an extra challenge to students with hand mobility issues who may find referencing from books and writing simultaneously difficult.

d. Online exams:

- Take home assignments are the most viable option for all.
- If online exams are to be conducted, mock exams need to be made available for practice for students. The same need to be tested for accessibility before implementation.
- Extra time: In addition to the 20 minutes extra per hour rule, additional extra time may also need to be provided to take into account assistive technology lags.
- Group Discussions and Oral Exams as modes of examinations could also be effective and inclusive at the same time (through TAs).
- The option of students answering in Braille with braille transcription through a resource centre should also be explored. The students' braille work can be sent across to the transcriber's residence.
- If students are attempting examinations with scribes, then a facility for telephonic scribes should be made available.
- It is critical to permit the student to opt for their preferred method of examination-taking from amongst these – recorded answers/ telephonic writers/ typing/ Braille/ oral. These depend on student-level factors – such as tech availability and savviness, availability of assistive technology for the students' subjects (regional language screen readers not always available) etc.

iii. Administrative and out-of-class support

It is important to acknowledge that for online learning to be effective, out-of-class systems and processes also need to run in the online mode.

a. Mapping online learning needs of SwDs:

- Individual need identification (either through disability support or teachers) is extremely crucial. Whilst this is the crux of effective inclusion in education, it becomes even more critical in the online learning mode. This is since the number of variants at the individual level increases in the online mode with each student operating from their unique environment conditions.
- Hence, not only the student but the environmental factors also become critical in doing the need mapping. e.g. A student who attempted computer exams in college (by borrowing a laptop from a resource centre) may not be able to do so in the online mode if they do not have access to a computer at home.

b. Point of Contact availability:

- Communication & problem-solving are extremely critical for effective inclusion.
- The SwDs need to have specific disability support centre staff/ specifically-assigned faculty to reach out to with their concerns.
- It is important to advertise/ communicate this information to SwDs.
- There should be an open channel between SwDs and support service and teachers.
- Fixed hours for clarifying doubts need to also be identified - both academic (teachers) as well as support service linked (appointed person/ disability resource centre).

c. Recruitment of volunteers/ teaching assistants for out-of-class support:

- To work around some of the unsolvable accessibility elements of online learning, and substitute the readily available in-person support on campus, it is critical to specifically recruit and assign out-of-class support to SwDs who need it (as identified through individual need mapping).
- Assistance to students with disabilities could be for - collating notes, completing assignments, exam preparation, reinforcement of concepts etc.

d. Social distancing not always a possibility for SwDs:

- As and when physical classes resume, SwDs would require assistance from time to time depending on their specific disability.
- There should be awareness regarding this amongst students without disabilities, faculty and staff members.
- SwDs would need gloves and sanitizers in addition to face masks if they need to hold railings while walking or climbing stairs.
- It would be necessary to ensure that the door handles/knobs of doors reserved for persons with disabilities, handrails of ramps or staircases, wheelchair rims, handle grips, etc. are disinfected regularly.

Therefore, it is critical to recognize that inclusion is a team effort!

Building inclusion involves advocating for support and coordinating with management, exam committees and disability resource centres/ NSS.

It is equally important to remember, teaching remains teaching regardless of the student being taught. Overcoming doubt is the biggest hurdle to effective inclusion!

The solutions are simple & doable once there is intent.

The next sections outline the 'How to' of making content accessible and subsequently the use of accessibility features and Assistive Technologies to make online learning more inclusive.

2. How To Make Online E-Learning Content Accessible

To understand how to make online E-Learning Content Accessible for SwDs we need to look at the following three elements of information:

- i. How do SwDs access material?
- ii. What is accessible material?
- iii. How to create accessible online content?

i. How do SwDs access material?

a. Total Blindness:

Screen Reader, Braille (Hard copy/ Refreshable Braille Display)

b. Low Vision:

Video Magnifier, Screen Magnifier

c. Learning Disabilities:

Easy-to-Read text, Simplified bulleted content

d. Orthopaedic Disabilities (Eye gaze/Book holding concerns):

Audio books

e. Hearing Impairment:

Text: Reading; Audio Content: Transcripts, Sign Language interpretation; Visual Content: Closed Captions, Lip reading

ii. What is accessible material?

a. Key Principles:

- **Accessibly designed material permits the students to access the same as per their preferred method:** e.g. An accessible Word file would be readable through sight, as also a screen reader, and render it well to a Refreshable Braille Display too. A video with subtitles and audio description would be accessible to a sighted person, a person with hearing impairment as also a person with total blindness.
- **Sensory Substitution:** The material should permit the use of one sense in place of another. If a person is not using eye sight, it should allow him to use their sense of hearing.
- **Multi-Sensory Approach:** The material created should allow the use of multiple senses for their access rather than just one.
- **No Clutter:** Information should be structured, simple and orderly. Clutter creates confusion for all.

b. Key Features:

- Text and not an image
- Browsing/Navigation – Easy and Orderly (Tables, Headings, Page Numbers, Paragraphs)
- Pictures – Alt Text (Image Description)
- No information to be presented only visually or only via audio (Don't use only colour to convey meaning.)
- Colour contrast – Dark on Light / Light on Dark
- Audio/Video – Printed text transcript and Audio Description
- Lack of clutter

NOTE:

Details of the above are presented in the next section.

iii. How to create accessible online content?

For making online learning content accessible, educators may do either of the following:

- Search for readymade content online
- Create content of one's own

It is important that either of the options used ensures accessibility of the material.

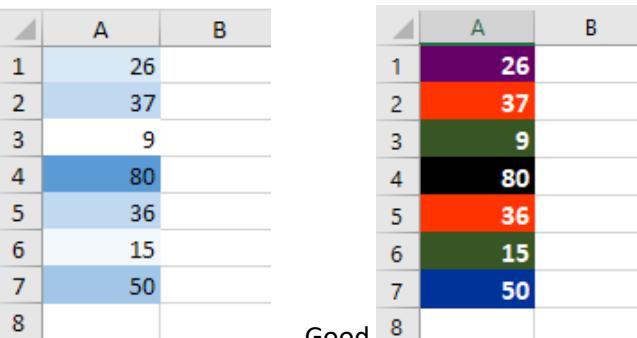
Presented below are steps to ensure accessibility of content.

NOTE:

Details of the technical steps involved in implementing the recommendations presented below are listed in Annexure A.

Accessibility Item	Online Resource – Checking for Accessibility	Making from scratch – Accessible	Converting Inaccessible Resource (online/self-created) into Accessible
Text Only	<p>Find text files rather than image files.</p> <p>Quick Check – Cursor Movement.</p> <p>If the cursor moves letter by letter, it is a text file.</p>	<p>Type directly.</p> <p>If typing cumbersome: Use Dictation Software: Google Docs or Microsoft Dictate (Office 365)</p> <p>When converting Word to PDF:</p> <p>Use Save As (not Export) option</p>	<p>Avoid hand-written images.</p> <p>Share with disability resource team for conversion.</p> <p>Self-Conversion Options:</p> <p>For handwritten content: Seeing AI (iOS), KIBO (Android – Now Free)</p> <p>For English typed content: Robo Braille (Free - Web & Android), Sullivan (Free - iOS & Android)</p> <p>For regional content: KIBO (Android – Now Free), Google Docs</p>
Browsing/ Navigation	Use of Microsoft & PDF Accessibility Checkers	<p>Insert heading levels.</p> <p>Auto numbering, and bulleted lists to be created from the Paragraph option in the Home Tab for them to be read appropriately.</p> <p>If bullets are part of MCQ type of questions, then the same need to be numbered rather than left as bullets.</p> <p>Ensure use of the Table option in the Insert Tab for creating tables.</p> <p>Use the Page Number option in the Insert Tab to insert page numbers.</p> <p>Use a single column layout over multi-column.</p>	

		<p><i>Note: Same rules apply for creating from scratch or converting an inaccessible document.</i></p>										
Pictures	Use of Microsoft & PDF Accessibility Checkers	<p>Insert image description for all images, graphs, tables.</p> <p>The description has to be short and capture the meaning of the image.</p> <p>If the image has a title/caption as part of the image, and it is descriptive enough then copy the same as the Alt text. Ignore decorative images; they don't need description. (e.g. borders etc.)</p>										
No presenting information only visually	You will need to physically browse through the content.	<p>No presenting information only using colour or visual cue. e.g. Question: <i>Categorize the words presented below in blue into adjectives or pronouns.</i> <i>agreeable, ambitious, brave, calm, delightful, eager, faithful, I, me, he, she, her, you, it</i> Accessible Version of Question: <i>Categorize the words presented below in List 2 into adjectives or pronouns.</i> <i>List 1: agreeable, ambitious, faithful, I, me, he, she</i> <i>List 2: brave, calm, delightful, eager, her, you, it</i></p>										
Colour Contrast	You will need to physically browse through the content.	<p>Dark text on Light background OR Light text on Dark background</p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>Bad Examples</th> <th>Good Examples</th> </tr> </thead> <tbody> <tr> <td>Blue on black is bad</td> <td>Yellow on black is good</td> </tr> <tr> <td>Green on orange is bad</td> <td>Black on orange is good</td> </tr> <tr> <td>Red on green is bad</td> <td>Black on green is good</td> </tr> <tr> <td>Grey on purple is bad</td> <td>White on purple is good</td> </tr> </tbody> </table> <p>(Ref: https://www.csun.edu/universal-design-center/web-accessibility-criteria-color-contrast)</p>	Bad Examples	Good Examples	Blue on black is bad	Yellow on black is good	Green on orange is bad	Black on orange is good	Red on green is bad	Black on green is good	Grey on purple is bad	White on purple is good
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		No use of gradient shades to differentiate content. Use of easily distinguishable colours.																																																						
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Audio/Video	<p>Pick videos that have closed captions.</p> <p>Use the following for finding videos with CC:</p> <ul style="list-style-type: none"> YouTube Checker for CC Google Search for CC <p>Pick videos where the meaning is conveyed verbally rather than only visually – e.g.</p> <p>https://www.khanacademy.org/science/ap-physics-1/ap-centripetal-force-and-gravitation/introduction-to-uniform-circular-motion-ap/v/angular-motion-variables?modal=1 (Explains visual content verbally as well)</p> <p>https://byjus.com/videos/understanding-uniform-circular-motion/</p> <p>(Does not explain visual content verbally)</p>	<p>If using videos without text transcription, you can create transcripts with:</p> <ul style="list-style-type: none"> Use of Otter with Zoom (Free Up to 3 Audio/Video) Use of Google Docs Use of Veed <p>Audio Description:</p> <p>Can be written description or audio recording interspersed with visual content</p> <p>This will need to be written out by a sighted volunteer</p> <p>e.g. https://www.youtube.com/watch?v=rgRv4bSdLdU</p>																																																						
Polls/ Surveys/ Forms etc.	N/A	<p>Google Forms is accessible.</p> <p>For any forms that are CAPTCHA protected, ensure that the captcha is both audio and visual and not either/or.</p>																																																						

To understand the technical steps of implementing the recommendations and the use of apps mentioned in the above table, please refer to Annexure A.

In addition, for a detailed understanding of creating accessible content, the following resources may be referred to:

- XRCVC'S Accessible Book Production Standards 1.4 –
http://www.xrcvc.org/docs/XRCVC_s_Accessible_Book_Production_Standards_1.4.pdf
- Guidelines for Creating Image Description –
www.diagramcenter.org

For Content Creation Trainings, contact the XRCVC:

E-mail ID: sam@xrcvc.org / sushil@xrcvc.org

Xavier's Resource Centre for the Visually Challenged (XRCVC)

St. Xavier's College, Mumbai – 400001

www.xrcvc.org

3. How To Use Accessibility Features Of Online Meeting Platforms & Assistive Technologies To Facilitate Inclusion In Online Classrooms

In addition to the pedagogical interventions and the accessible content, there are a range of accessibility features on online meeting platforms and assistive technologies that can be used to build inclusion and accessibility. Presented below are those based on categories of disabilities as listed under:

- i. Students with Blindness
- ii. Students with Low Vision
- iii. Students with Hearing Impairment
- iv. SwD self-use of Assistive Technologies
- v. Upcoming Technologies in this space

i. Students with Blindness

All the three well-known conference room applications (Zoom, Google Meet, Microsoft Teams) are accessible to screen readers. However, there are some challenges that can be faced by students using screen readers which are listed below with suitable solutions for the same.

a. Working with Screen Readers on Live Sessions:

Students with blindness who use screen readers would get the audio of the screen reader simultaneously with the presenter's speech. In live classrooms, this is usually managed with earphones in one ear and the other ear open to live sound. This becomes a challenge in online sessions since both the screen reader and the teacher sound are computer linked. Hence, the following options are suggested.

- Volume variation of the screen reader & applications
- Setting headphones/earphones speakers right and left to different sounds
- Use of virtual desktops

NOTE:

The technical steps for doing the above are presented in Annexure B.

b. G Suite with Screen Readers:

Screen readers have shown to lag with using G Suite applications. Certain workarounds help with this lag.

- Use of Google keyboard shortcuts whilst using G Suite applications reduces the lag (<https://support.google.com/a/users/answer/1631886?hl=en>)
- Use of Google Drive App in offline mode also reduces the lag
- Save Google Docs as Microsoft .doc enables for ease of navigation and work with screen readers
- If students are using multiple cloud storage systems then use of applications like CloudHQ to merge multiple cloud storage enables efficiency (https://www.cloudhq.net/g_suite)

ii. Students with Low Vision

Students can be asked to enable these applications at their end for a better experience of online sessions.

a. Browser magnification:

Facilitates magnification of internet-based content

b. Chrome extension for colour contrast:

Facilitates colour contrast features for online content

c. Inbuilt Windows Magnifier:

Facilitates magnification of all system applications and windows

NOTE:

The technical steps for doing the above are presented in Annexure B.

iii. Students with Hearing Impairment

To facilitate Closed Captions (CC) for students with hearing impairment, the following options are available. Both within live sessions and while making presentations.

a. Closed Captions (CC) for Conference Applications

- Paul G. Allen School of Computer Science & Engineering, University of Washington, & I-Stem's Captioning for Zoom Plug In (Free). A new plug in has been released to activate closed captioning on Live Zoom meetings.
(Details about how to set it up can be found here - <http://captioning.inclusivestem.org/>)
- Set Otter to Zoom
- Google Meet
- Microsoft Teams

b. Live Closed Captions (CC) in Presentations

- Google Slides: Switch on the CC
- Office 365: Enable closed captions

NOTE:

The technical steps for starting these are presented in Annexure B.

iv. SwD self-use of Assistive Technologies

In addition to the technologies mentioned so far which the teacher can use, many of them can be used by SwD themselves to enable accessibility at their end.

a. Handling online submissions:

Non-tech savvy students

- Google Docs – Voice Typing (as mentioned earlier in Part B 2.iii)
- Microsoft Dictate – online Office 365 (as mentioned earlier in Part B 2.iii)

b. Self-creating accessible content by SwD:

- Making students aware of the apps for content creation
- Encouraging them to get trained – Contact the XRCVC or your disability resource centre
- KIBO/ Seeing AI etc. for students with total blindness (as mentioned earlier in Part B 2.iii)
- Chrome colour contrast etc. for students with low vision (as mentioned above in Part B 3.ii)
- Otter and Google Docs for creating transcripts for students with hearing impairments (as mentioned above in Part B 2.iii)

v. Upcoming Technologies

Further options are being worked on by I-Stem (www.inclusivestem.org) and are likely to be available in the near future. Some of them include:

a. AI-based alternate format conversion:

- Math OCR and other advanced formatting/layout properties such as multi-column pages and tables (expected to be available from August 2020)
- Limited escalations of documents for manual remediation in case automated service is unable to provide an accurate enough result

b. Speech Dictate for custom domains:

- Speech recognition to dictate work
- Option to train custom models for specific domains/terminologies to ensure specialized content

c. Video captioning:

- Similar to Speech Dictate, but for generating video transcripts
- Escalation to be made available, if needed

To be notified as these services are launched, complete the form available at accessibility.inclusivestem.org

In case of any questions about these services, reach out to I-Stem at info@inclusivestem.org.

Annexure A: Technical Steps for Ensuring Accessibility of E-Content for Students with Disabilities

I. Identification of File as Text PDF or Image PDF

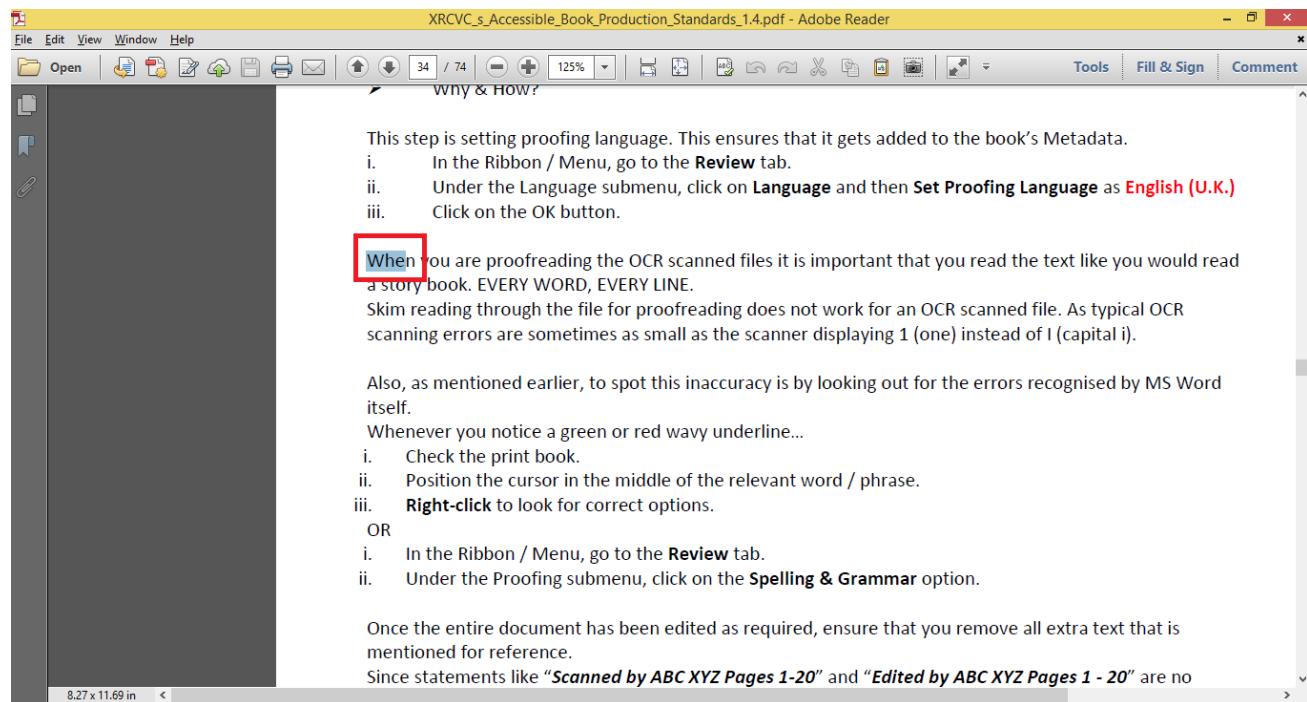
While searching for English files online, try your best to find text files. Following are the steps to check for the file being text/image.

Text PDF

Step 1: Open the PDF file.

Step 2: Select some text either with the mouse or with the Arrow keys on the keyboard. (Keyboard Shortcut Shift + Right Arrow)

If the text gets selected character by character, it is a text-based pdf.



For further confirmation...

Step 3: Copy the selected text from the PDF file. (Keyboard Shortcut Ctrl + C)

Step 4: Open a Microsoft Word document.

Step 5: Paste the selected text in the Microsoft Word document. (Keyboard Shortcut Ctrl + V)

If the text gets pasted as it is, then it is text PDF file, and it is accessible with a screen reader.

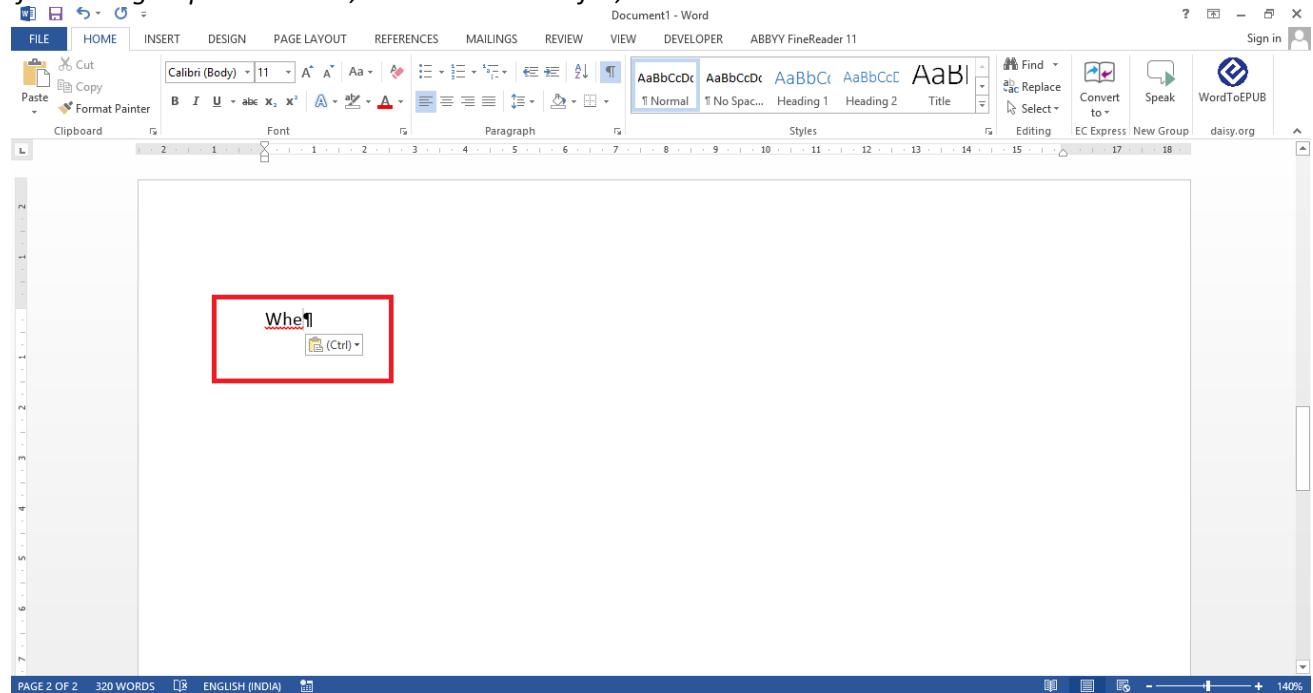
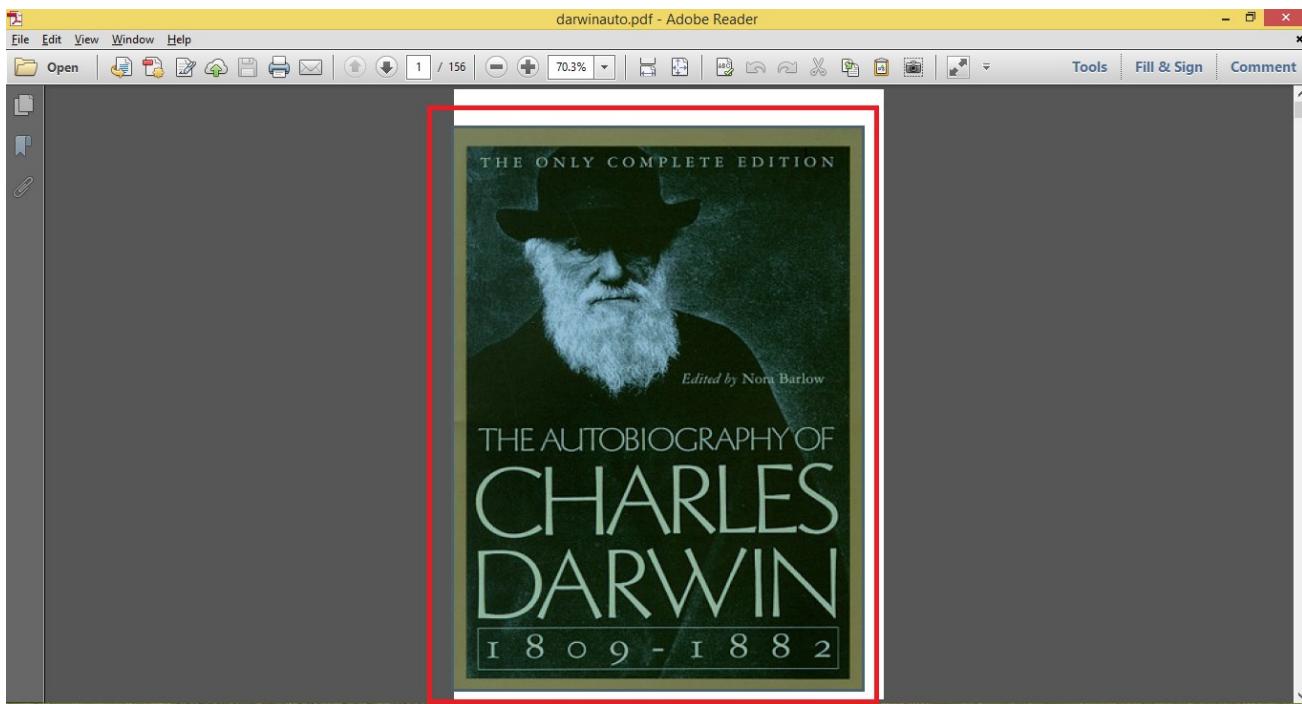


Image PDF

Step 1: Open the PDF file.

Step 2: Select some text either with the mouse or with the Arrow keys on the keyboard.

If the text is not getting selected character by character, but a large portion of the page gets selected together, then it is an image PDF, which is not accessible with screen readers, and would need to be converted into an accessible format.



II. Use of Dictation Software

Dictation software helps people who suffer from carpal tunnel syndrome, those who experience pain in their hands while typing, and even those with dysgraphia, dyslexia, visual impairments and physical disabilities. Teachers and content creators can also make use of this facility to have their notes typed out in case they are not too comfortable with the use of the keyboard.

NOTE:

This requires the user to have a microphone installed and working.

Everything you say will appear in the body of the document. Speak clearly in normal volume and at a normal conversational pace so the tool can understand what you're saying. Dictation software can also recognize punctuation and add it to the document. Just say the name of the punctuation. You would like to type e.g. period, comma, question mark, new line etc.

Also, ensure no background sounds while recording. If you make a mistake or the wrong word is recorded, move the cursor to the incorrect word or phrase and make the necessary changes.

How to use Voice Typing in Google Docs on the Computer

NOTE:

This feature is only available in the Google Chrome browser.

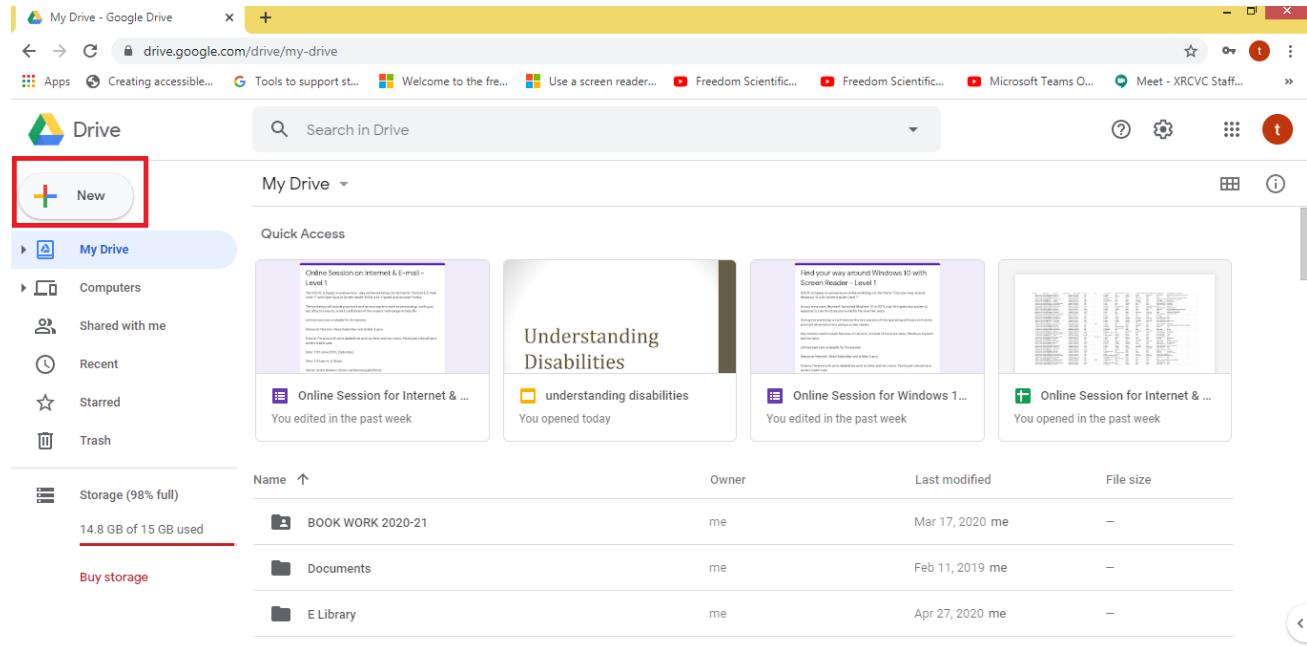
Step 1: Open your **Google Chrome** browser.

Step 2:

- Visit this link <https://drive.google.com/> and sign in with your Gmail ID.

- If already logged in to your Gmail ID, access Google Drive from the list of **Apps** (to the left of the User Account icon).
- Login to Gmail then click on **Apps** button (to the left of the User Account icon) and click the triangular **Drive** icon.

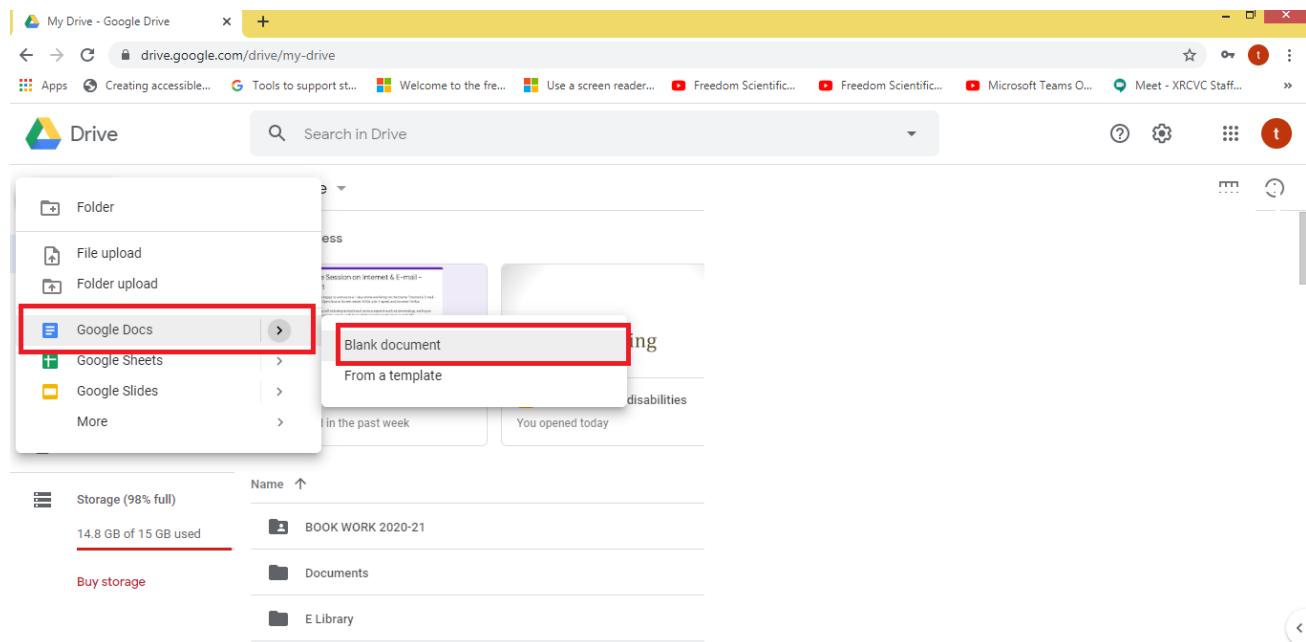
Step 3: After logging in to Drive, click the **New** button.



It will open a list showing various options such as Folder, File Upload, Folder Upload, Google Docs, Google Sheets, Google Slides, More.

Step 4: Click **Google Docs** (Keyboard Shortcut Down Arrow & Enter). This opens a submenu showing **Blank Document**, and From a Template.

Clicking on **Blank Document** will open blank document in a New Tab of the browser window.

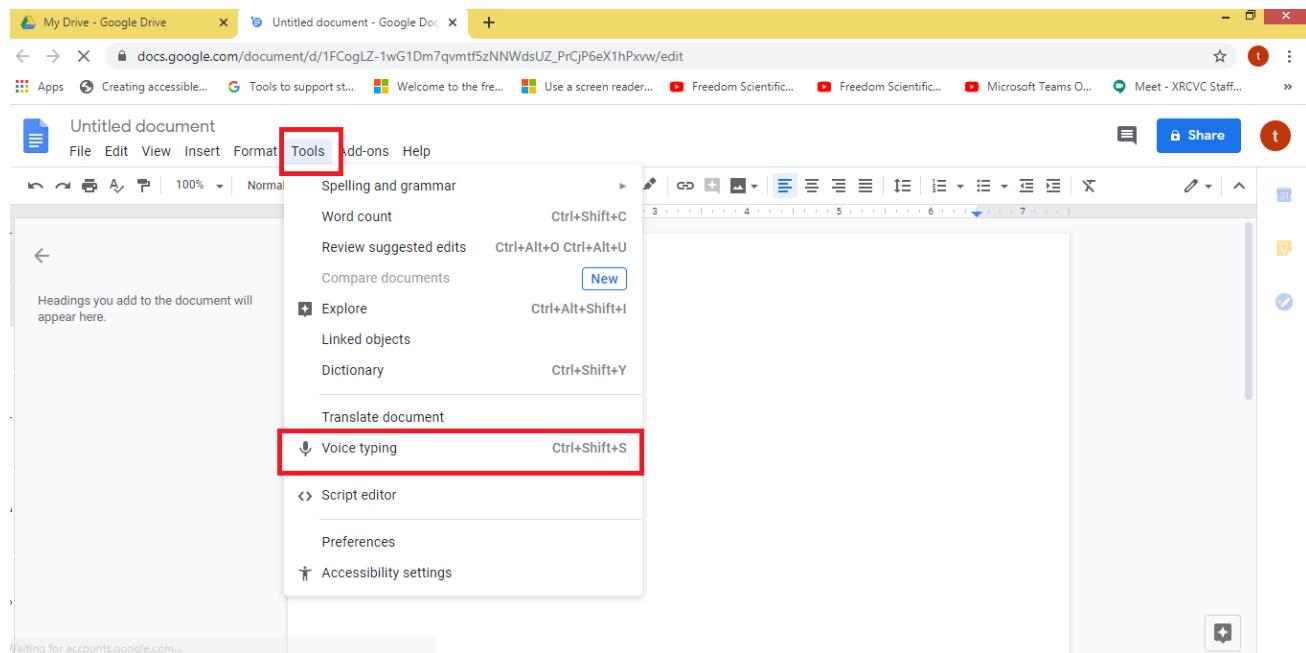
**Note:**

If the user wants to use a readymade template, they can select the **From a template** option from this submenu to see the available templates.

Step 5: In the new tab (**Untitled document**), click on the **Tools** menu in Google Docs (Keyboard Shortcut Shift + Alt + T, followed by Down Arrow, & Enter).

Then click on the **Voice Typing** option to enable it.

(Keyboard Shortcut to activate Voice typing Ctrl + Shift + S in Windows OS or Command + Shift + S in macOS)



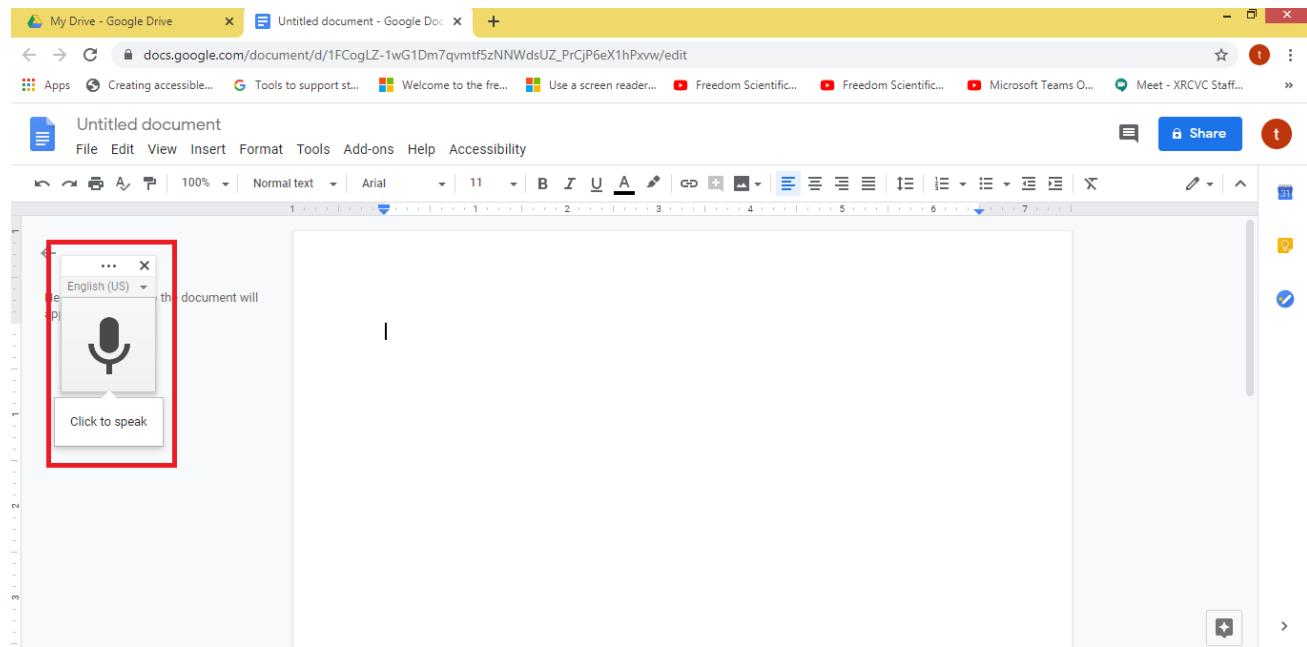
A small window with a microphone icon will appear.

Step 6: Click on the mic when you are ready to dictate.

You can move the tool out of the way by clicking and dragging the window wherever you want.

NOTE:

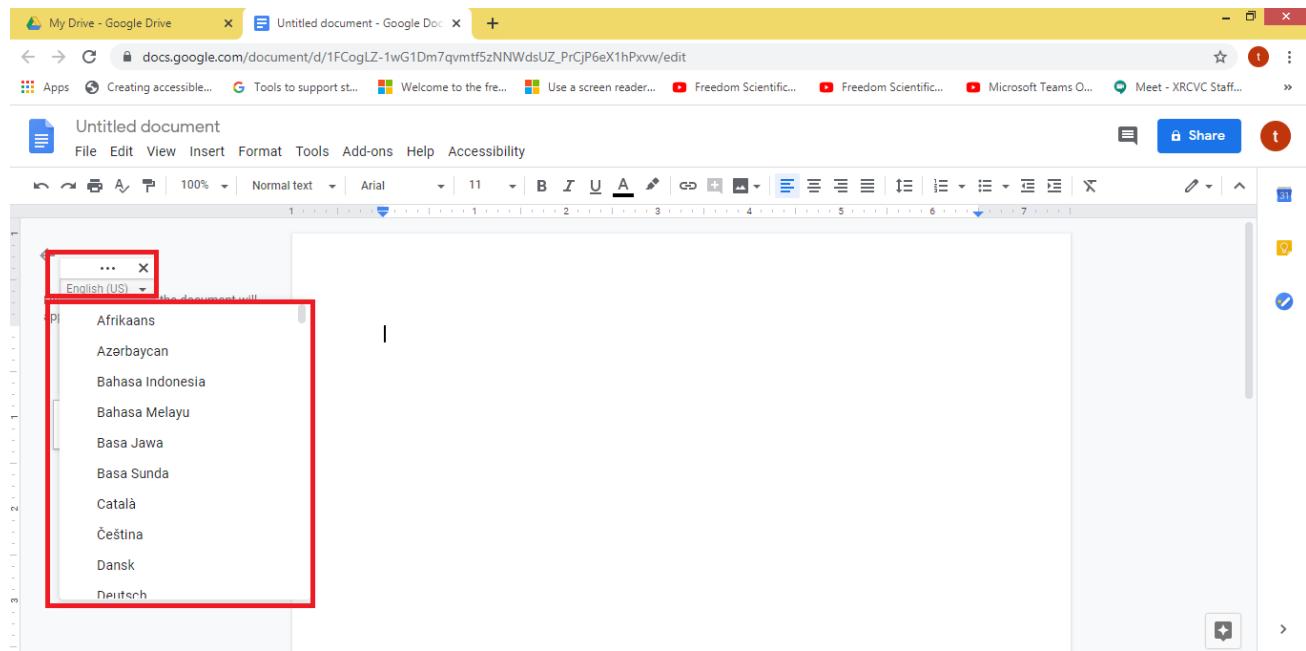
The first time you use **Voice typing**, you'll need to grant Chrome permissions to use your microphone.



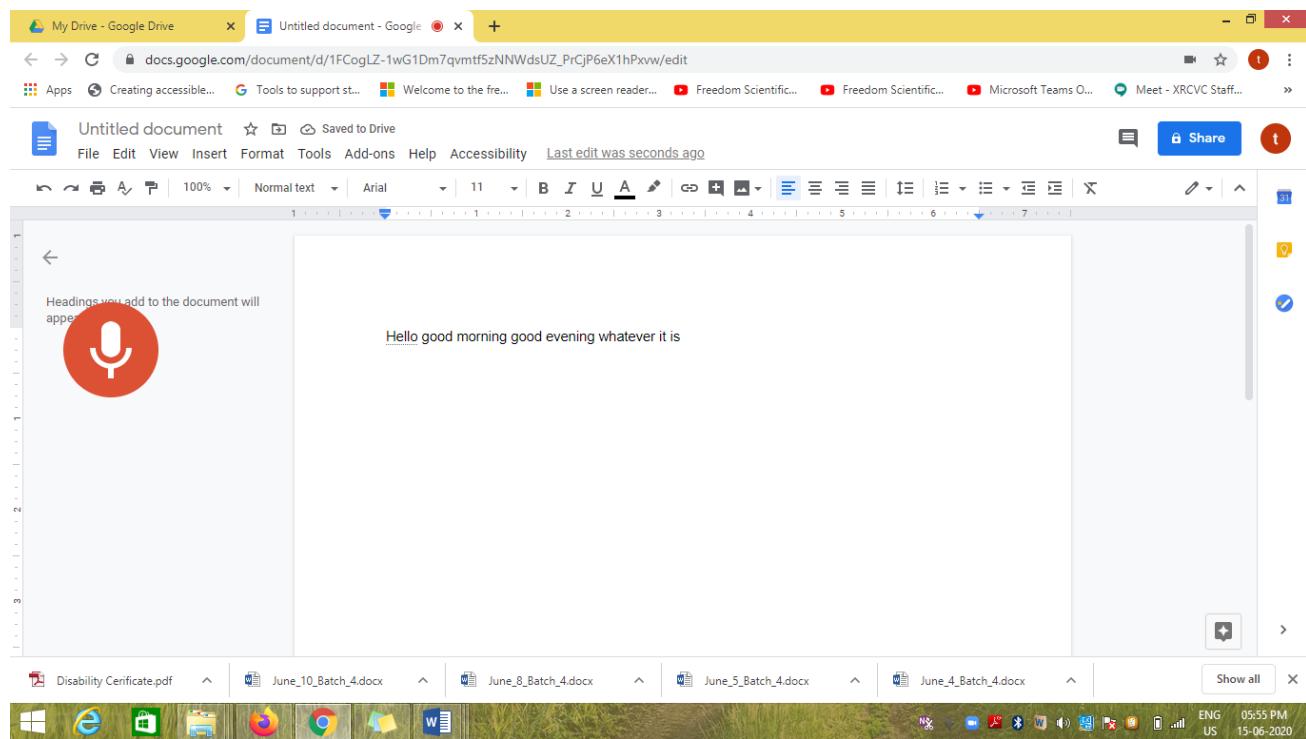
Step 7: If **Voice typing** does not automatically load your desired language, click the three dots just above the microphone icon and then use the Language drop-down list to select from over 100 languages and dialects.

NOTE:

If it's having trouble understanding you, make sure you have selected the correct dialect in the Languages menu.



Voice typing processes your voice in real-time.



Step 8: When you finish speaking or no longer want voice typing to pick up any of the words, click the microphone again to stop listening, or say "Stop listening".

NOTE:

Punctuation only works in German, English, Spanish, French, Italian, and Russian.

Reference link Google Docs Voice Typing Steps (webpage) –

<https://support.google.com/docs/answer/4492226?hl=en>

Voice Typing in computer browser (video) –

<https://www.youtube.com/watch?v=Hq6eLFnwzsl>

How to use Microsoft Dictation on the Computer

NOTE:

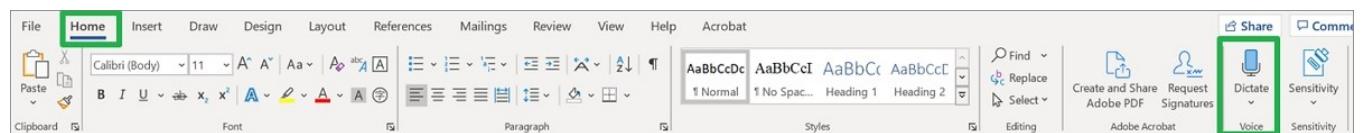
This feature is available to Office 365 subscribers only.

Step 1: Open a **Microsoft Word** document.

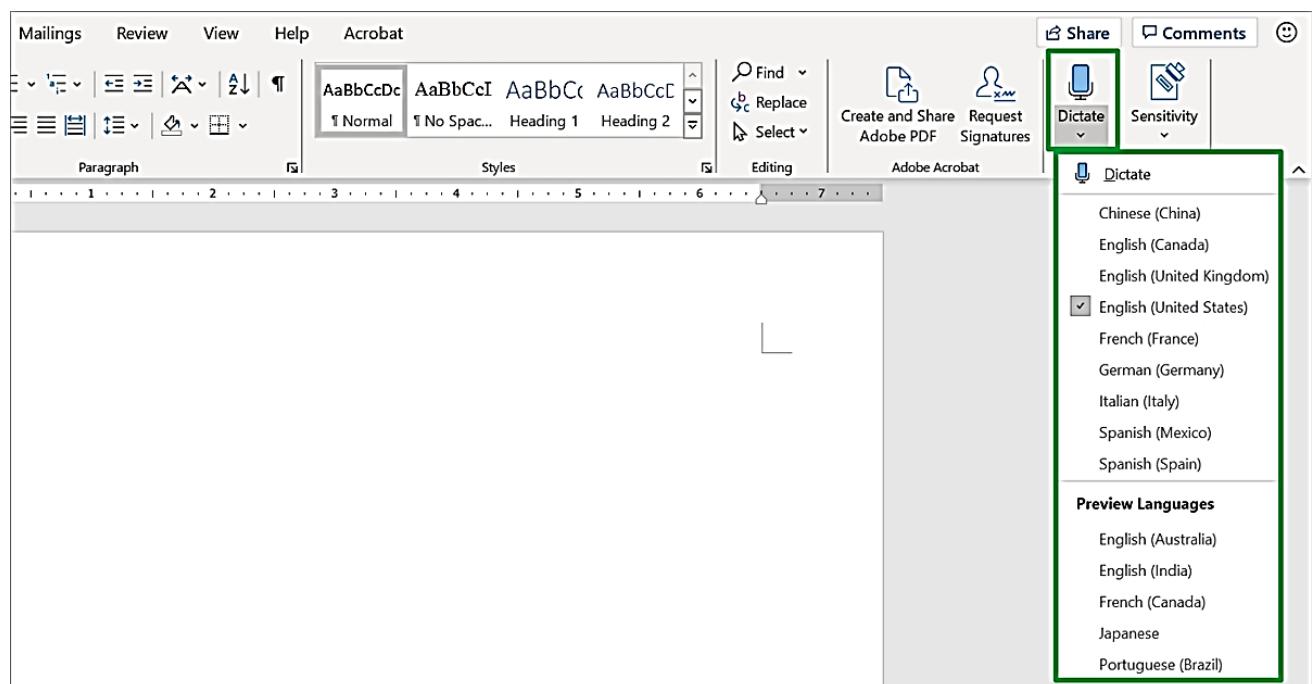
Step 2: Go to the **Home** tab, look to the far right of the tab; click on **Dictate**.

NOTE:

The default language for dictate will be in the default language of your device.



Step 3: If the language needs to be changed, click on the small downward-pointing arrow below the **Dictate** microphone icon to open the dropdown list of languages.



Step 4: After choosing the language, wait for the small red circle similar to a regular **record** icon. Once the red icon appears, the **Dictate** button has been turned on and has started to listen.



Microsoft Dictate Demo Video Link - <https://www.youtube.com/watch?v=nh6Bs3gCY9M>

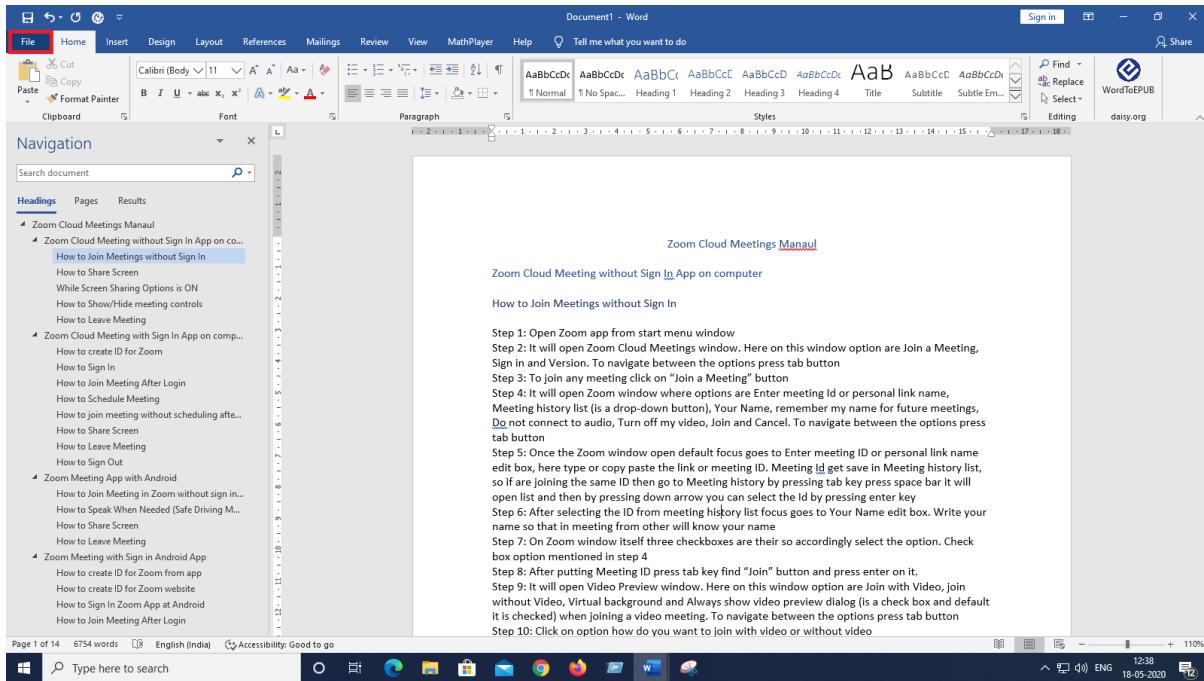
III. Converting Word Files to PDF Files: Use of Save As Option

Given below are the steps that one should follow to save a .doc file as a .pdf file so that it is correctly saved as a Text PDF (What To Do).

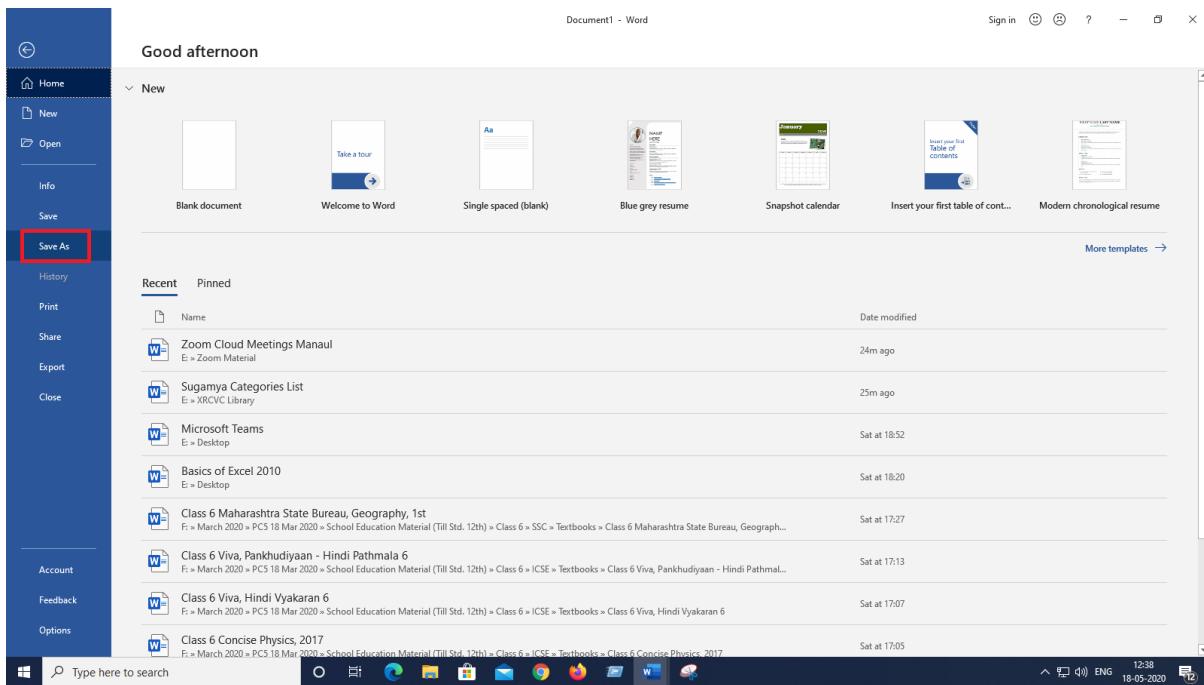
Further down is stated what should not be followed (What Not To Do) since this leads to the file being saved as an Image PDF that makes all the effort put in to build an accessible file go in vain.

WHAT TO DO

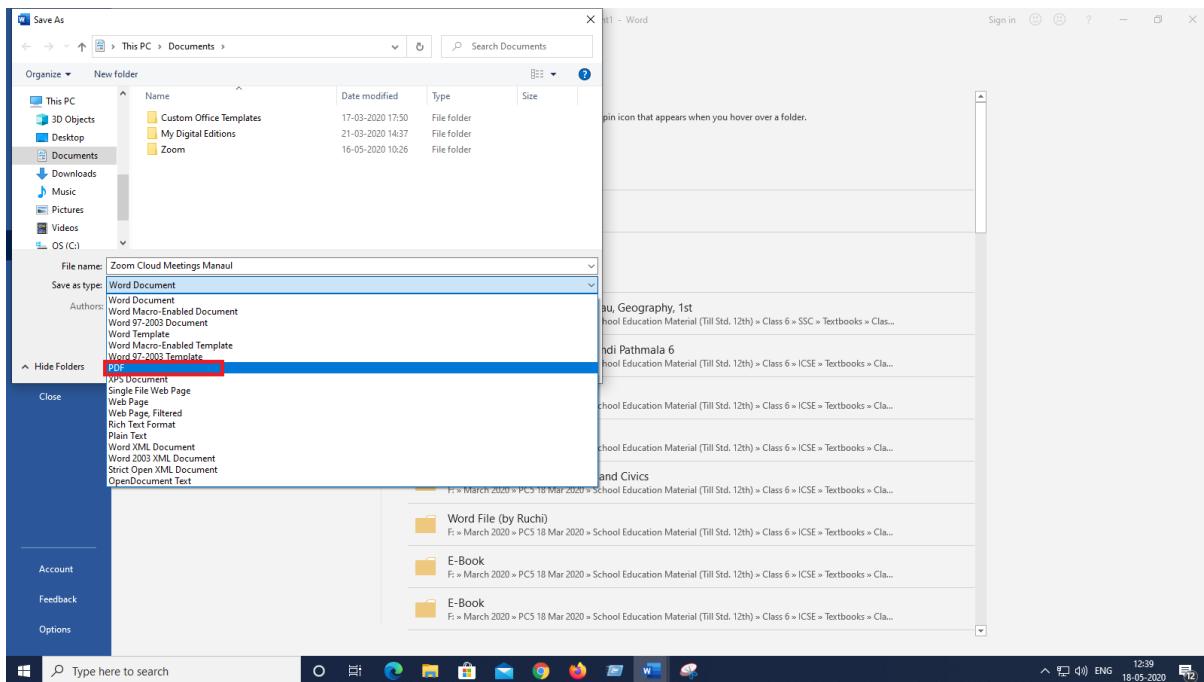
Step 1: Once the Microsoft Word document is ready, click on **File** tab.



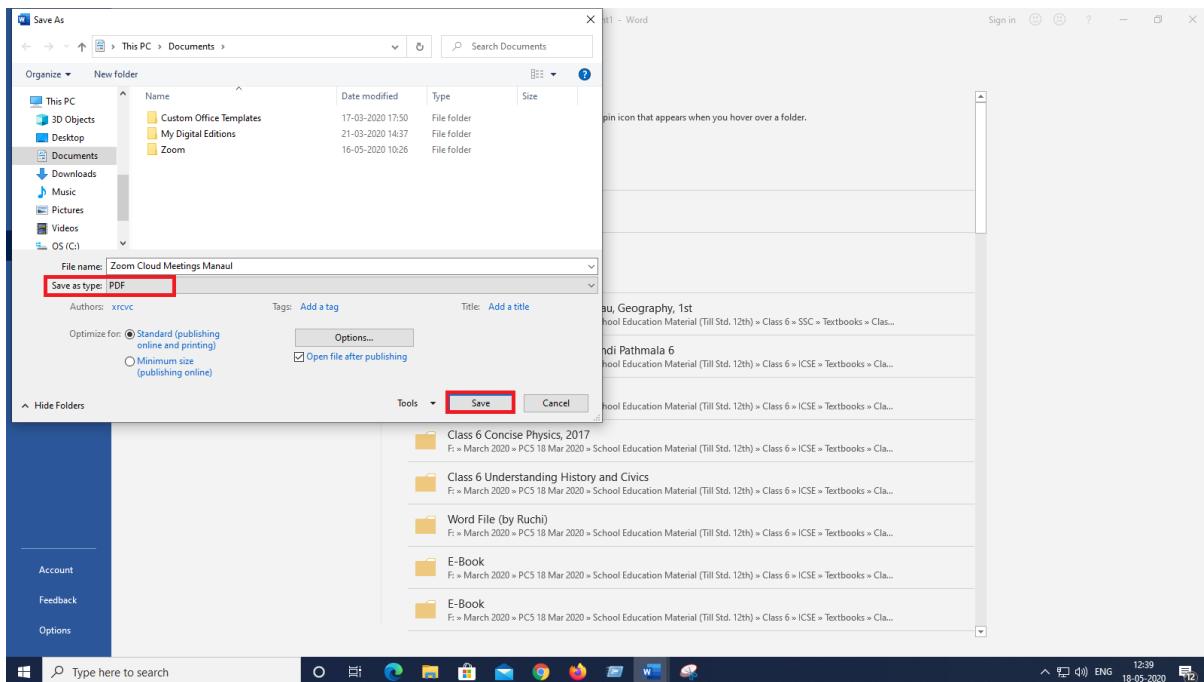
Step 2: Go down to the **Save As** option.



Step 3: From the Save As type dropdown list, select the PDF option.

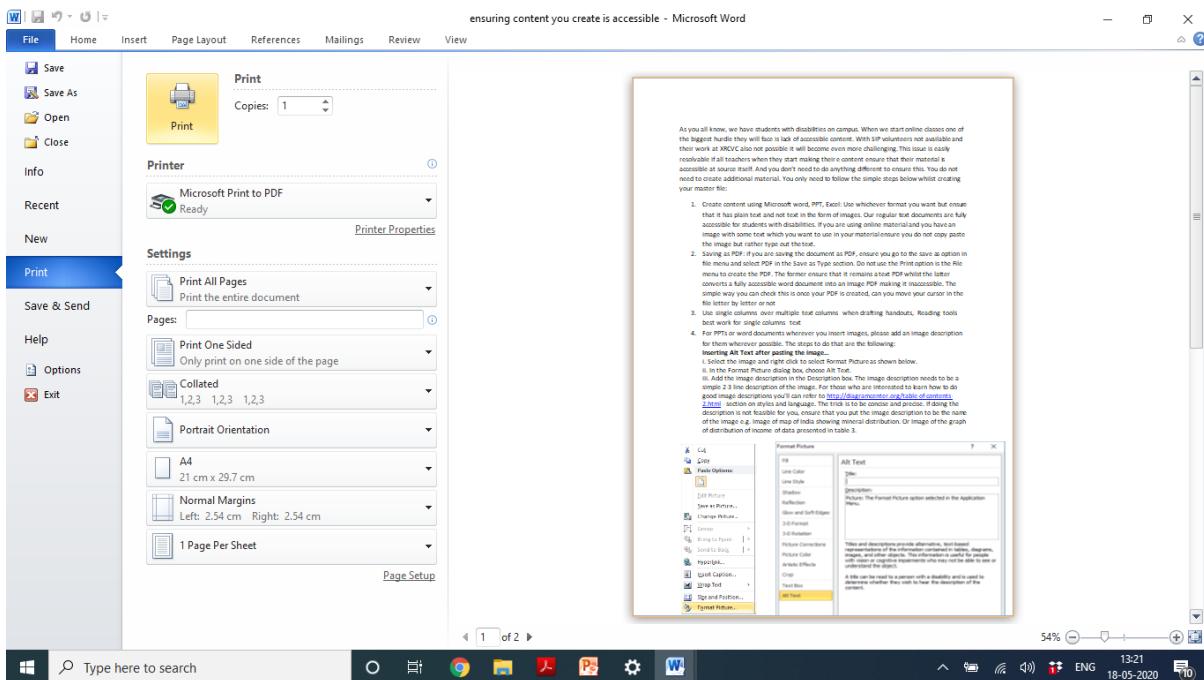


Step 4: After the list closes, click on the Save button.

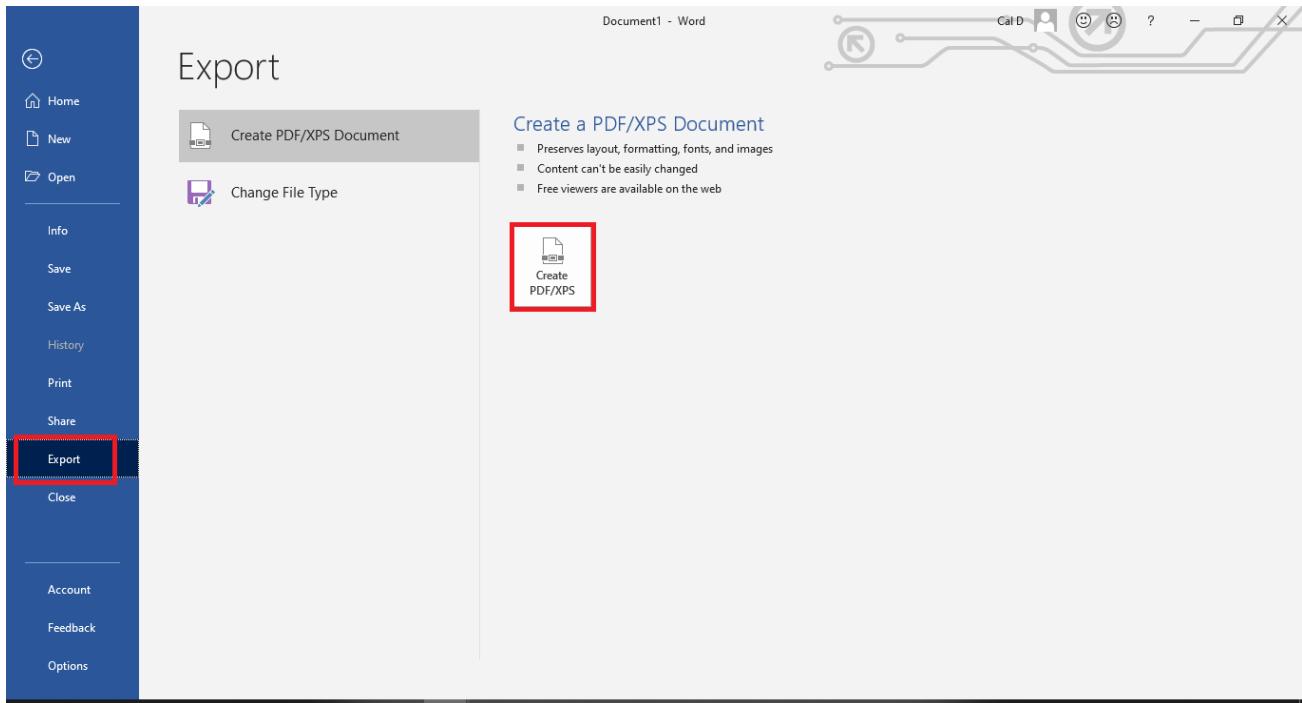


WHAT NOT TO DO

- x Don't save the PDF using options from the Print section in MS Word.



- x Don't save the PDF using the Export option in MS Word.



IV. Use of OCR Software for Converting Non-Accessible content to Accessible Formats

Optical Character Recognition (OCR) is needed if the content available is not accessible such as in the case of images, image-based PDFs etc. The following applications can be used for specific types of material as mentioned below. Accuracy results are best for handwritten material with Seeing AI and KIBO, for English printed material with Robo Braille and for Indian language content with KIBO

- For handwritten content:
Seeing AI (iOS – Free), Kibo (Android – Now Free)
- For typed content in English:
RoboBraille (Web & Android – Free), Sullivan (iOS & Android – Free)
- For typed content in Regional languages:
Kibo (Android – Now Free), Google Docs (Web – Free)

How to convert files with Google Docs

To use the OCR function available through Google, the PDF, image or files in other supported formats need to be opened with Google Docs in Google Drive. Google Docs has an inbuilt feature to convert non-accessible files using OCR technology.

NOTE:

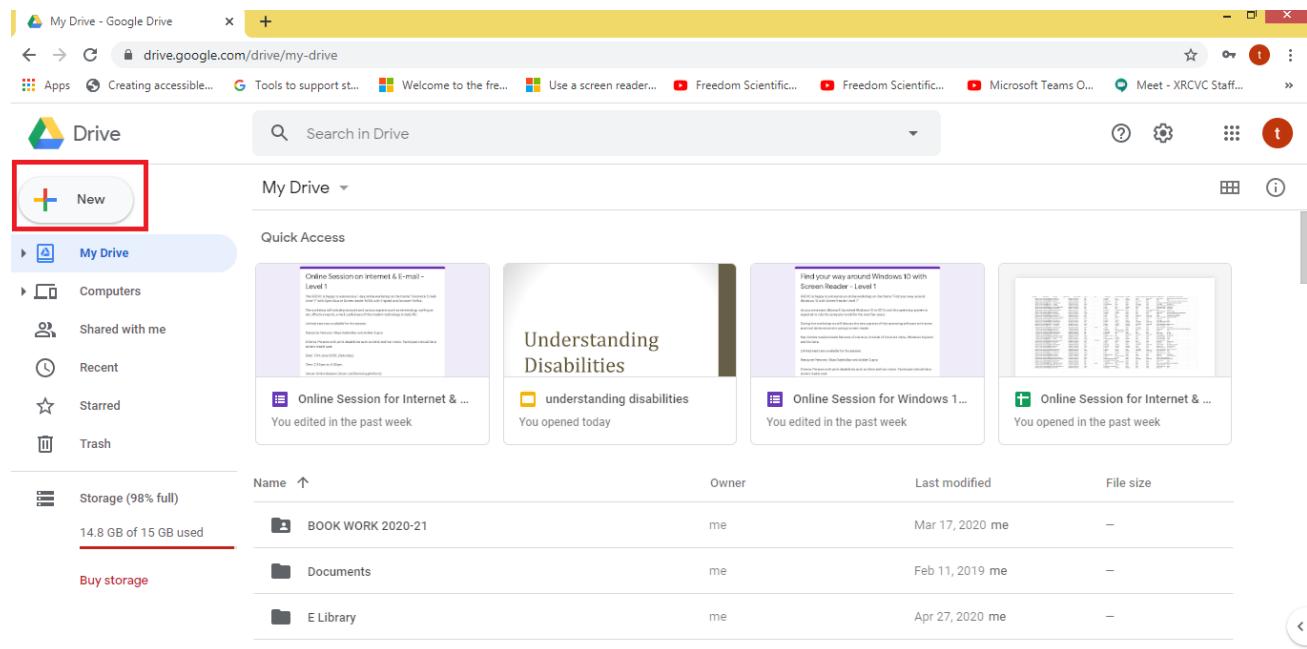
OCR using this process is possible in English as well as a few other Indian Regional Languages.

Step 1: Open your Google Chrome Browser.

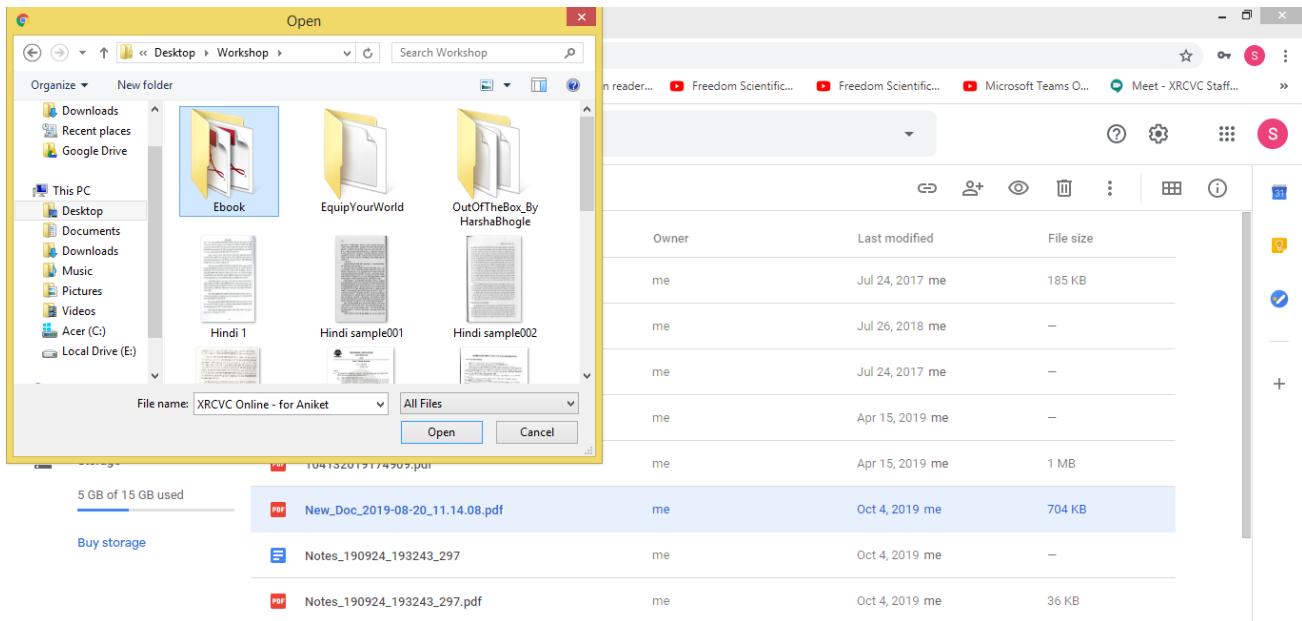
Step 2:

- Visit this link <https://drive.google.com/> and sign in with your Gmail ID.
- If already logged in to your Gmail ID, access Google Drive from the list of **Apps** (to the left of the User Account icon).
- Login to Gmail then click on **Apps** button (to the left of the User Account icon) and click the triangular **Drive** icon.

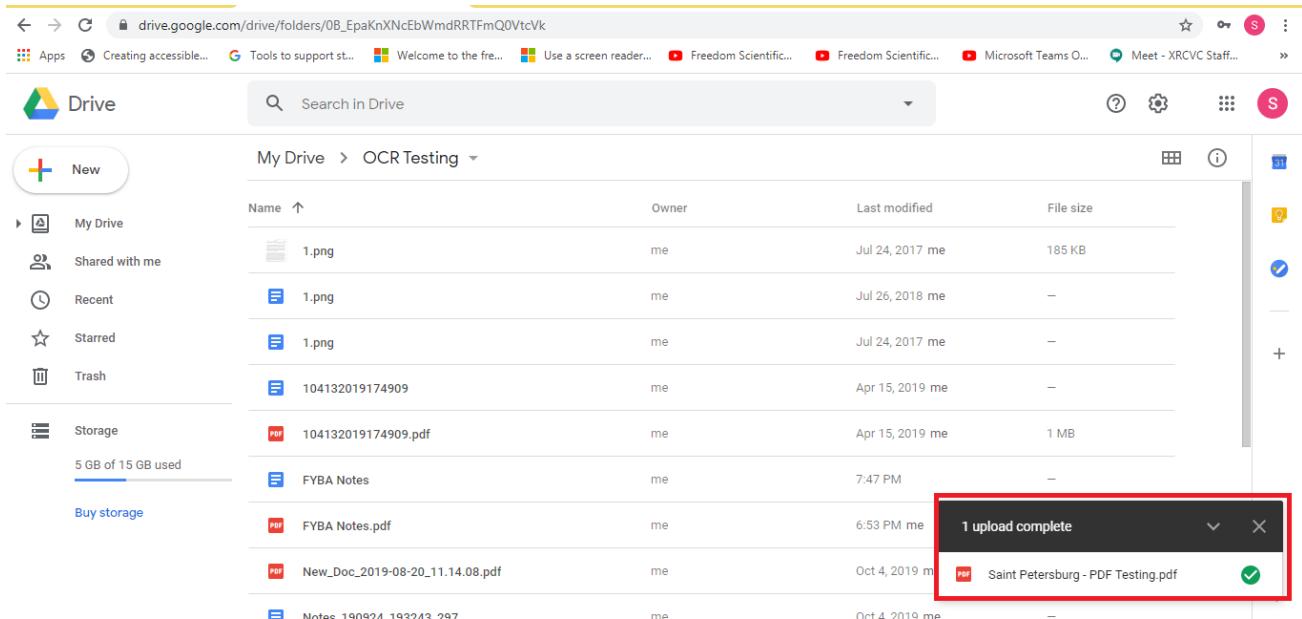
Step 3: After logging in to Drive, click the **New** button, and select the **File upload** option.



Step 4: Choose the relevant file from the appropriate folder and click on the **Open** button in the Open dialog box to upload the file to Drive.



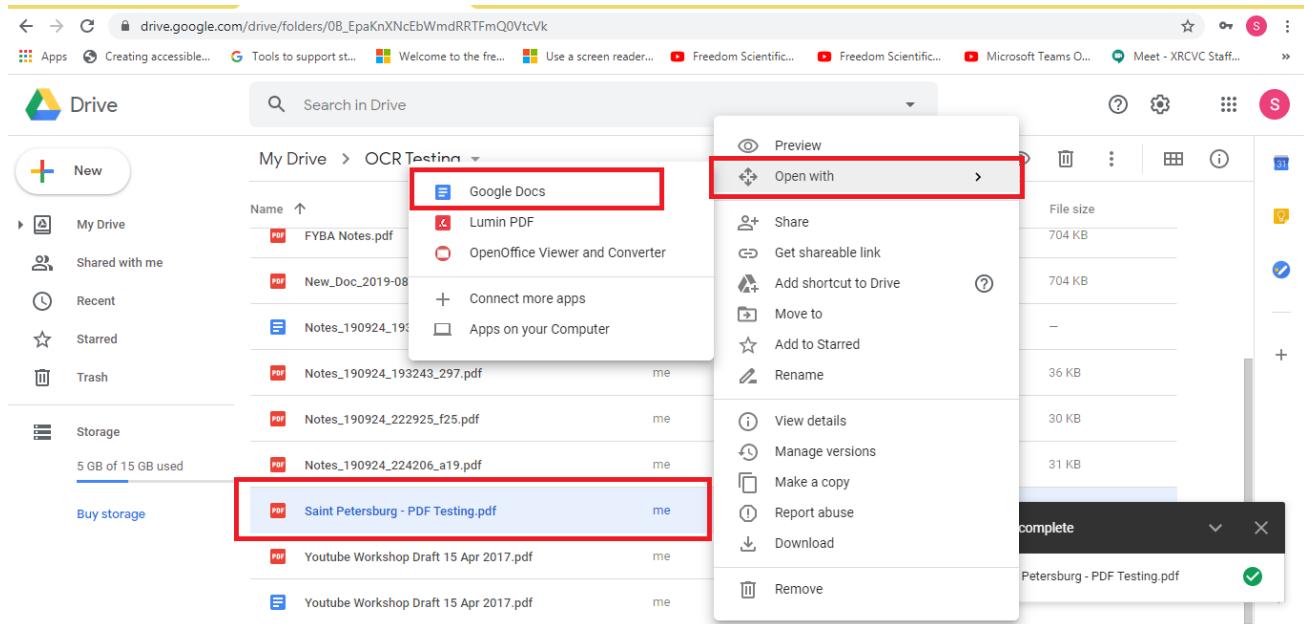
Step 5: Once the file begins to upload, a Status bar / notification will pop up in Drive.



Step 6:

- Once the relevant file appears in the Drive list of files, use the mouse to right click.
- Choose the **Open with** option which opens a submenu and click on **Google Docs**.

After a few seconds, it will convert the pdf file into a Google Docs format by extracting all the text.



Step 7: Now you can work online in Google Docs to correct the errors which comes after converting files i.e. the editing process.

Step 8: If you are not familiar with Google Docs to edit etc. online, then,

- Install Google Drive Offline into the PC: It will help sync the drive files & folders on your computer. After syncing is complete you can edit or rectify the errors by opening the file as Microsoft Word. The corrected file will automatically sync to your google drive when there is internet connectivity on your computer.
- You can view a Google OCR Demo Video - PDF to Docs Link here:
<https://www.youtube.com/watch?v=RDYAVlqjxrg>

How to use RoboBraille

Step 1: Go to google search for RoboBraille.org Or Visit <https://www.robobraille.org/>

Convert a File

Follow the four easy steps below to have your document converted into an alternative, accessible format. The result is delivered in your email inbox. You may upload one or more files, enter a URL to a file or simply type in the text you wish to have converted. The form expands as you make your selections.

Source

File
 URL
 Text

Step 1 - Upload your document

Select your file and upload it to the server (max 64 MB). Multiple files of the same type may be selected. Supported file types are .DOC, .DOCX, .PDF, .PPT, .PPTX, .TXT, .XML, .HTML, .HTM, .RTF, .EPUB, .MOBI, .TIFF, .TIF, .GIF, .JPG, .JPEG, .BMP, .PNG, .PCX, .DCX, .J2K, .JP2, .JPX, .DJV and .ASC

File name: No file chosen

Step 2: Choose your desired source option from - File, URL, Text. Once you select the File option, choose the 'Choose file' button to upload file from the computer and then Click the upload button for next stage of the process.

Convert a File

Follow the four easy steps below to have your document converted into an alternative, accessible format. The result is delivered in your email inbox. You may upload one or more files, enter a URL to a file or simply type in the text you wish to have converted. The form expands as you make your selections.

Source

File
 URL
 Text

Step 1 - Upload your document

Select your file and upload it to the server (max 64 MB). Multiple files of the same type may be selected. Supported file types are .DOC, .DOCX, .PDF, .PPT, .PPTX, .TXT, .XML, .HTML, .HTM, .RTF, .EPUB, .MOBI, .TIFF, .TIF, .GIF, .JPG, .JPEG, .BMP, .PNG, .PCX, .DCX, .J2K, .JP2, .JPX, .DJV and .ASC

File name: No file chosen

Step 3: Next Steps will come at the bottom of the web page called "Select the Output". Select the desired options from those listed. Click on "Accessibility conversion".

Follow the four easy steps below to have your document converted into an alternative, accessible format. The result is delivered in your email inbox. You may upload one or more files, enter a URL to a file or simply type in the text you wish to have converted. The form expands as you make your selections.

Source

File
 URL
 Text

Step 1 - Upload your document

Select your file and upload it to the server (max 64 MB). Multiple files of the same type may be selected. Supported file types are .DOC, .DOCX, .PDF, .PPT, .PPTX, .TXT, .XML, .HTML, .HTM, .RTF, .EPUB, .MOBI, .TIFF, .TIF, .GIF, .JPG, .JPEG, .BMP, .PNG, .PCX, .DCX, .J2K, .JP2, .JPX, .DJV and .ASC

File name: Choose Files No file chosen

The file FYBA Notes.pdf was successfully uploaded to the server (704 kB).

Step 2 - Select output format

Specify the target format of your document. For this document type, the following formats are available:

Target format

MP3 audio
 Braille
 E-book
 Accessibility conversion

Step 4: Next Steps will load at the bottom of the web page called “Specify accessibility conversion options”. Click on the Target format combo box which will have different formats like doc, docx etc, select your preferred format.

The file FYBA Notes.pdf was successfully uploaded to the server (704 kB).

Step 2 - Select output format

Specify the target format of your document. For this document type, the following formats are available:

Target format

MP3 audio
 Braille
 E-book
 Accessibility conversion

Step 3 - Specify accessibility conversion options

Specify the target format of the conversion.

Options

Target format:

 docx - Microsoft Word
 rtf - Rich Text Format
 pdf - Tagged PDF (text over image)
 pdf - Tagged PDF (image over text)
 xls - Microsoft Excel
 xlsx - Microsoft Excel
 csv - Comma separated
 txt - Windows Text
 htm - HTML

Step 4 - Enter email address and submit request

Email address:

Step 5: Next Step will come in the bottom of web page called “Enter email address and submit request”

The file FYBA Notes.pdf was successfully uploaded to the server (704 kB).

Step 2 - Select output format

Specify the target format of your document. For this document type, the following formats are available:

Target format

- MP3 audio
- Braille
- E-book
- Accessibility conversion

Step 3 - Specify accessibility conversion options

Specify the target format of the conversion.

Options

Target format: doc - Microsoft Word

Step 4 - Enter email address and submit request

Email address:

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Step 6: After submit button is clicked. The page will be redirected to Receipt page which will show the Details of your request. After conversion of your file you will get an e-mail with the converted file. You will receive the e-mail depending on the size of the document. Shorter documents are received immediately. Longer documents may take up to a few hours.

Receipt

Your document has been successfully submitted to the service for conversion. Once completed, the result will be delivered to your email inbox.

If you are satisfied with the service and wish to help keeping RoboBraille free, you can make a donation via Paypal or credit card by clicking the button below (external website):

[Donate to RoboBraille](#)

Details

Parameter	Value
File name:	FYBA+Notes.pdf
Extension:	.pdf
Email address:	keshav@xrcvc.org
Process:	Accessibility conversion (convert@robobraille.org)
Document type:	doc - Microsoft Word

The request was submitted on 15 June 2020 17:03:23. SiteID=main-web3

[Back](#)

How to use Kibo application

Kibo is an Optical Character Recognition app used to convert the non-accessible content for students with print disabilities. It recognizes handwritten, printed content, image text etc. It helps to Converts English & Indian Regional Language

NOTE:

KIBO is free as a mobile app.

KIBO Web App needs the Kibo Scanner hardware & cannot convert a .pdf file directly. Though the company is working on this currently.

KIBO App is available for Android OS Only

You can refer the following links for more information:

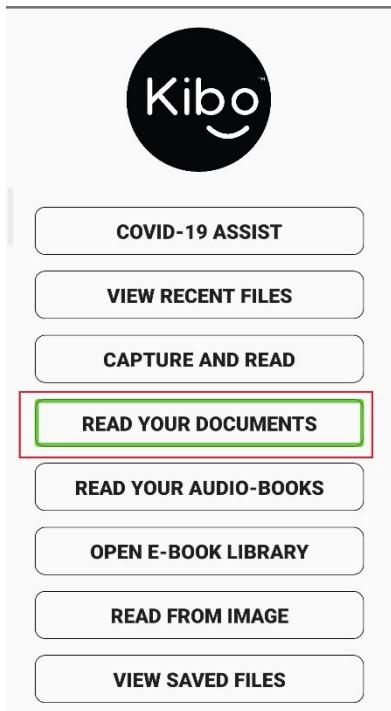
- User Guide Link - <https://trestlelabs.com/kibo-app-guide>
- Android Mobile App Link -
https://play.google.com/store/apps/details?id=com.trestle.labs.kibo&hl=en_IN
- Kibo Mobile App Video - <https://www.youtube.com/watch?v=j2jcFPDyYu0>
- Kibo Web App Login Link - <https://kibo.trestlelabs.com/>

Step 1: Install the App on your android phone

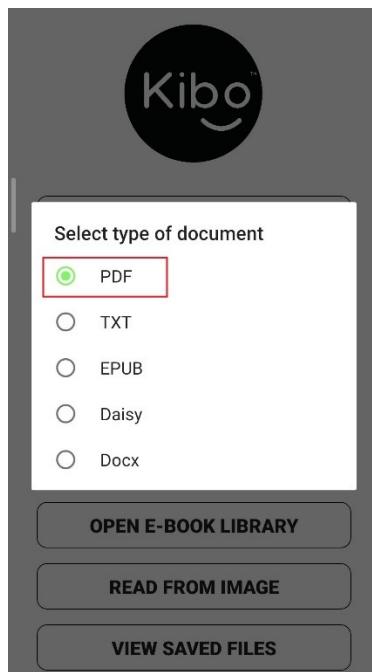
Step 2: Do the necessary settings (Text to Speech Engine Settings, App Permission)

Step 3: Open the App

Step 4: Click on “Read Your document” (If you want to convert an inaccessible file)



Step 5: You will be prompted to a list of options (PDF, Word etc). Click on PDF to convert the PDF.

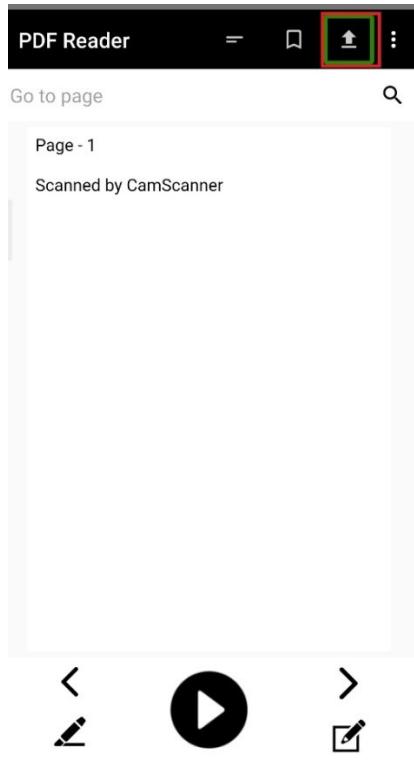


Step 6: File Manager of Kibo will be opened. Find your file or change the location of folder from “All” dropdown button to your preferred folder.



Step 7: Once you locate the file you want to convert open the pdf. It will show as a blank document if it is not accessible to read from the app.

Step 8: Click on the Upload Button on the top right corner



Step 8: It will process the file with a ringtone. After few second it will convert the file and will display the text in accessible format.

Step 9: Click on the Save icon.

The Picaresque Novel:

FYBAENG / 20 / 08 / 19 The picaros, upon whom the picaresque novel is based, were usually errand boys, porters, or factotums (persons employed to do a wide variety of tasks) and were pictured as crafty, sly, tattered, hungry, unscrupulous, petty thieves. They stole to escape starvation and were likable despite their defects. The picaresque novel, a reaction against the absurd unrealities and idealism of the pastoral, sentimental, and chivalric novels, represents the beginnings of modern Realism. It juxtaposed the basic drives of hunger cruelty, and mistrust and the honorable, glorious, idyllic life of knights and shepherds. Hunger replaced love as a theme, and poverty replaced wealth. Early picaresque novels were both idealistic and realistic, tragic and comic, and the authors attacked political, religious, and military matters. Some authors were sincere reformers, while others conveniently set off their sermons so they might be easily avoided. They reflected the poverty and and

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Step 10: It will open the dialog “save file” with a list of options” Select “Save Full Text” to Save the entire converted file.

The Picaresque Novel:

FYBAENG / 20 / 08 / 19 The picaros, upon whom the picaresque novel is based, were usually errand boys, porters, or factotums (persons employed to do a wide variety of tasks) and were pictured as crafty, sly,

Save File

Save Current Page only

Save Processed Pages only

Save Full Text

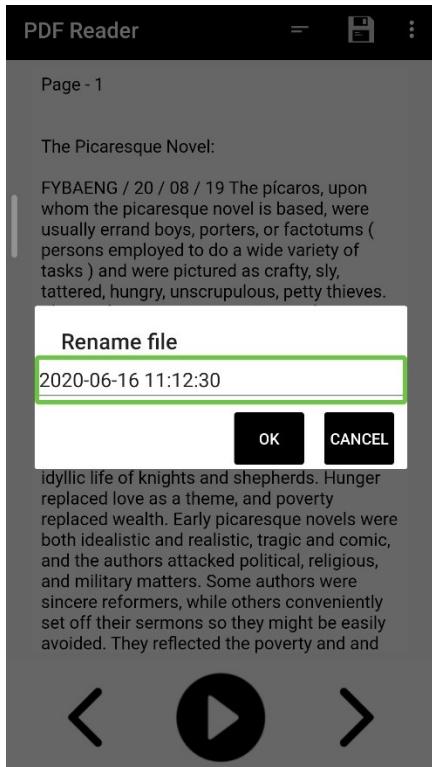
replaced love as a theme, and poverty replaced wealth. Early picaresque novels were both idealistic and realistic, tragic and comic, and the authors attacked political, religious, and military matters. Some authors were sincere reformers, while others conveniently set off their sermons so they might be easily avoided. They reflected the poverty and and

< >

Step 11: It will prompt the dialog called “Rename file” which will have the date & time to save file, you can type your desired name and save the file.

NOTE:

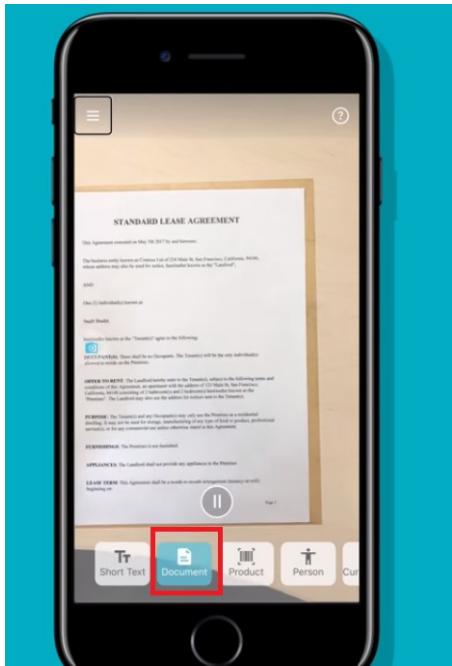
- The file will Get Saved asdefault in Notepad Format which is “.txt”
- Files get saved in Kibo Folder in the Internal Memory of the phone.
- If you want to read the saved file in the kibo app Click on “saved files.” You will be able to see your file and read.
- In PDF Conversion it will do 1st Page to show the user accurate level. Each user needs to press Next icon to process 3 pages every time



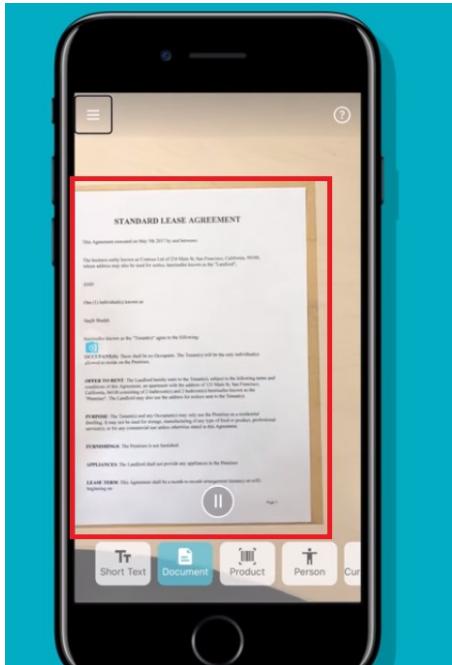
How to use Seeing AI application

Step 1: Open the Seeing AI on iOS Mobile

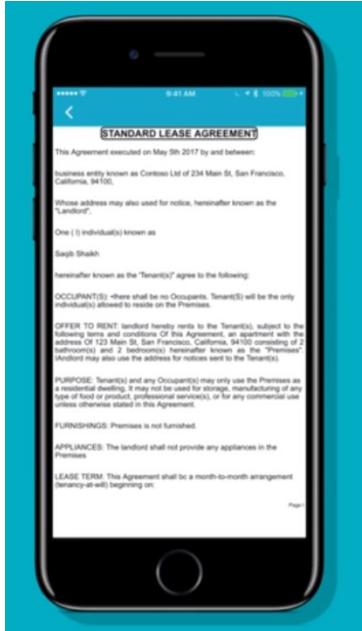
Step 2: At the bottom there will be a number of options to recognize. Choose the Document Options



Step 3: Place the image or printed book which you need to OCR in focus of the rear camera of your mobile. It will instruct the user through voice, if the document is visible in the camera properly.



After the content is recognized it will show in the screen. You either send to others or save in the file.



You can look up details for the above at:

- Seeing AI Document Demo Video Link - <https://www.youtube.com/watch?v=J16R9Snr0BU>
- Seeing AI Documentation - <https://www.microsoft.com/en-us/ai/seeing-ai>

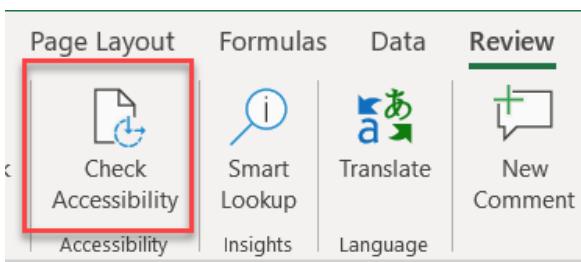
V. Use of Accessibility Checker in Microsoft and PDF

Use of Microsoft Word Accessibility Checker in MS Office 2016, 2019 or 365

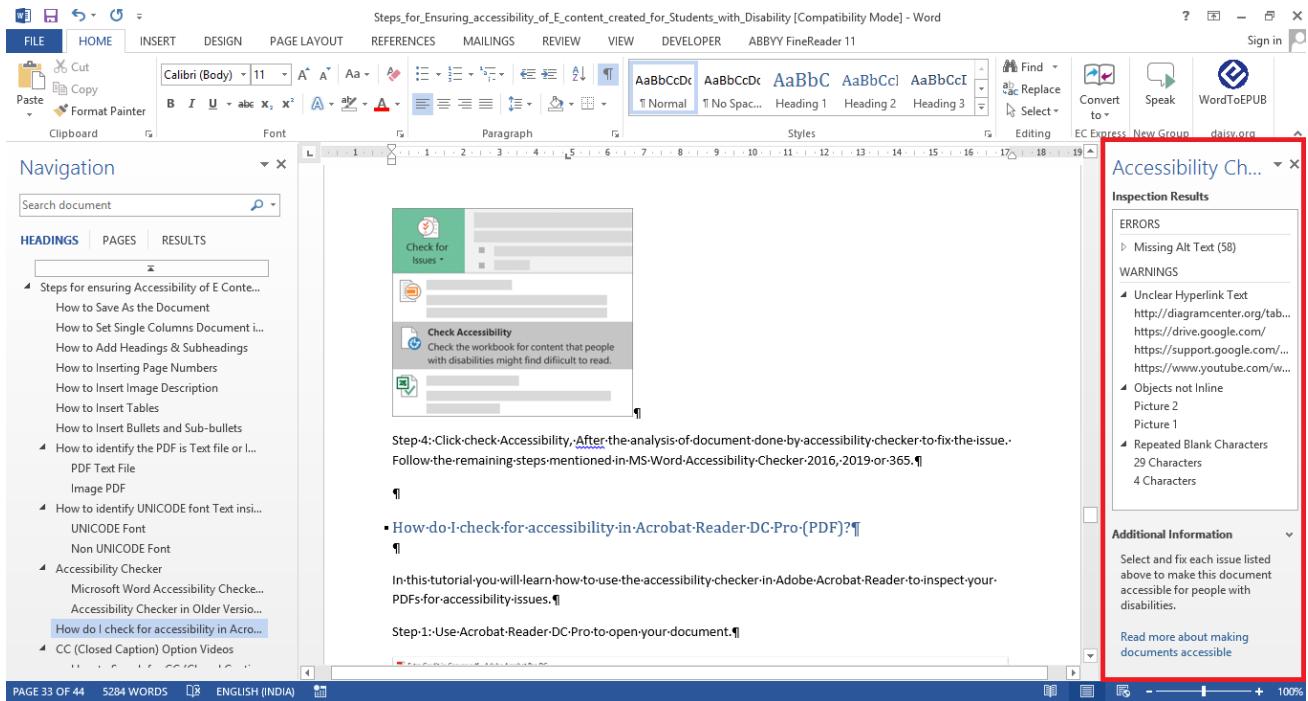
Running the Accessibility Checker in Microsoft Word is an essential step in ensuring a document is fully accessible. Using the Accessibility Checker, you can see what elements of your document need attention to make them accessible to all users.

Step 1: Open the Microsoft Word Document which you want to check for accessibility.

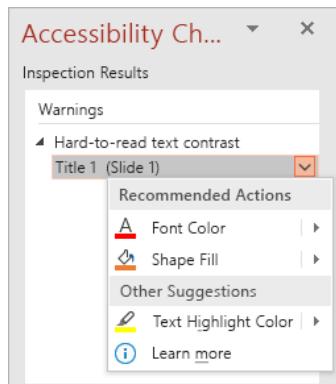
Step 2: On the Microsoft Word ribbon, select the Review tab and Select **Check Accessibility**.



Step 3: Review your results on the right hand side panel. You will see a list of errors, warnings, and tips with how-to-fix recommendations for each.



Step 4: To easily address accessibility errors and warnings, select an issue to open the **Recommended Actions** list. You can apply a one-click fix by selecting an action, or select the arrow button next to an action for more options.



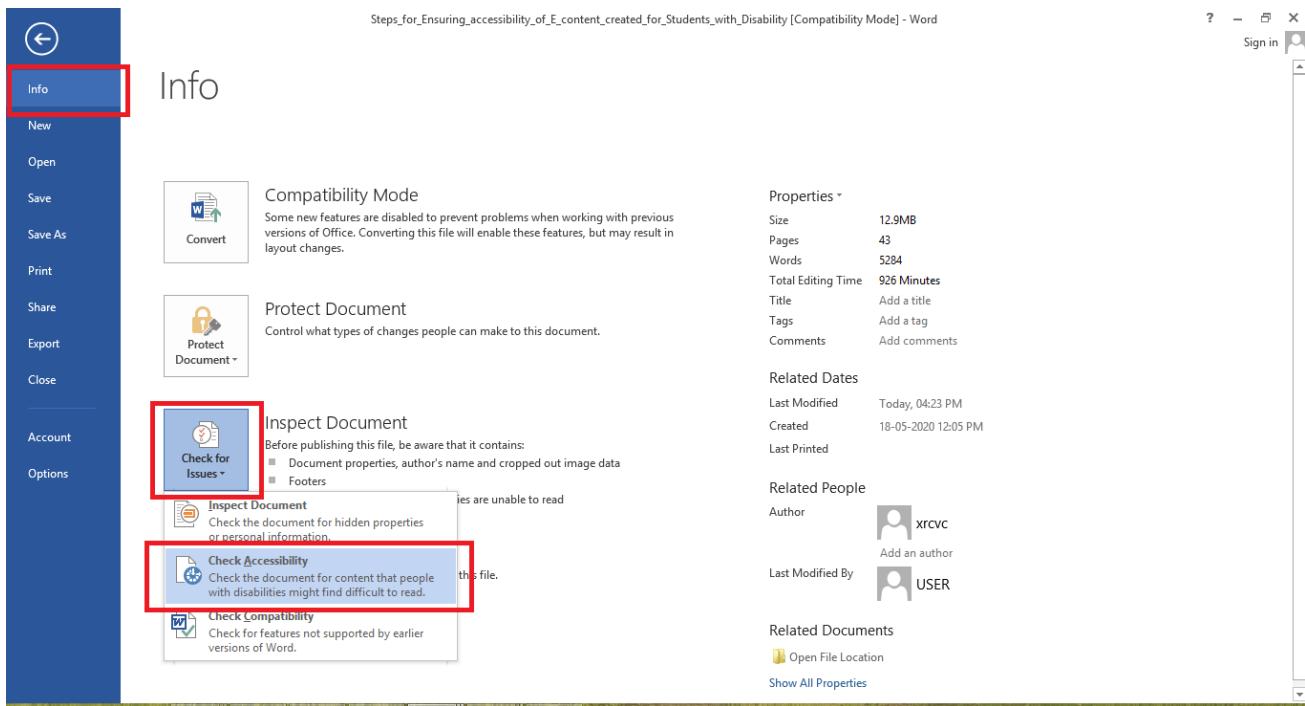
Accessibility Checker in Older Version Microsoft Word (2010, 2013)

If you don't see the Check Accessibility button on the Review tab, you might have an older version of the software. Follow these steps to open the Accessibility Checker.

Step 1: Open the Microsoft Word Document which you want to check for accessibility.

Step 2: Select the **File option** followed by **Info**.

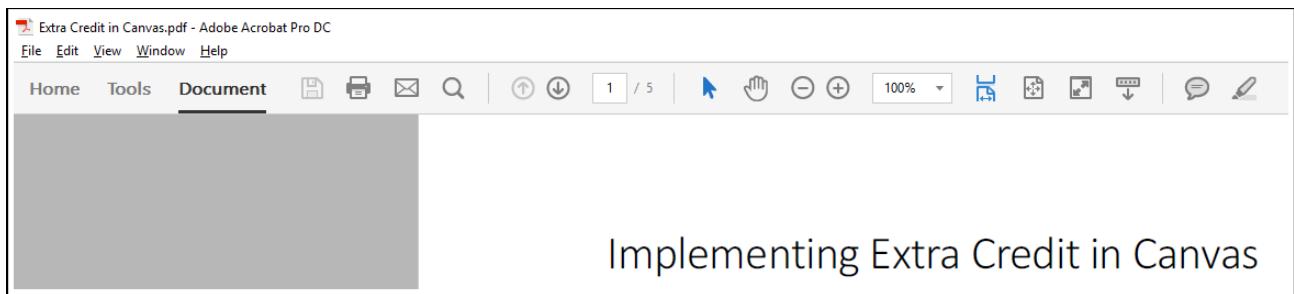
Step 3: Select the **Check for Issues** drop-down menu and select **Check for Issues**.



Step 4: Click Check Accessibility option. After analysing the document the software will present the issues and suggestions to fix the issue. Follow the remaining steps mentioned in MS Word Accessibility Checker 2016, 2019 or 365.

Accessibility Checker in Acrobat Reader DC Pro (PDF)

Step 1: Use Acrobat Reader DC Pro to open your document.

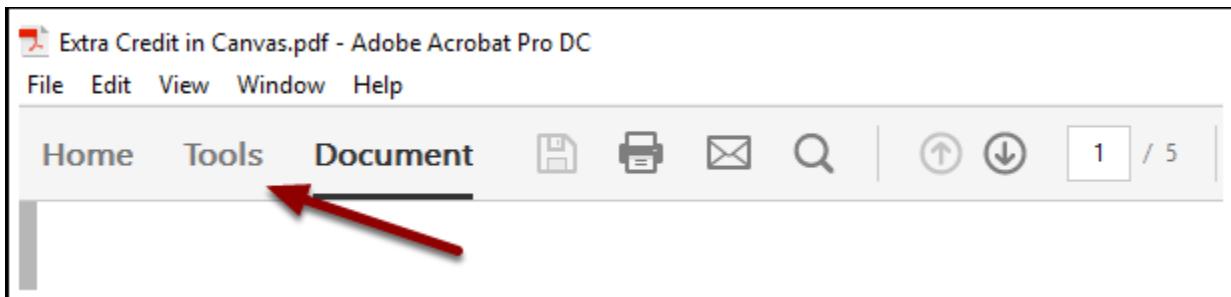


Step 2: Add the Accessibility Tool to your Toolbar

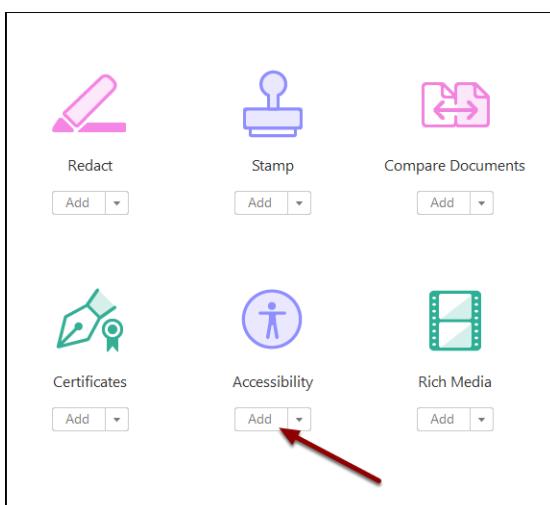
NOTE:

You can skip this step if you already see the Accessibility Tool in the Toolbar on the right side of the window.

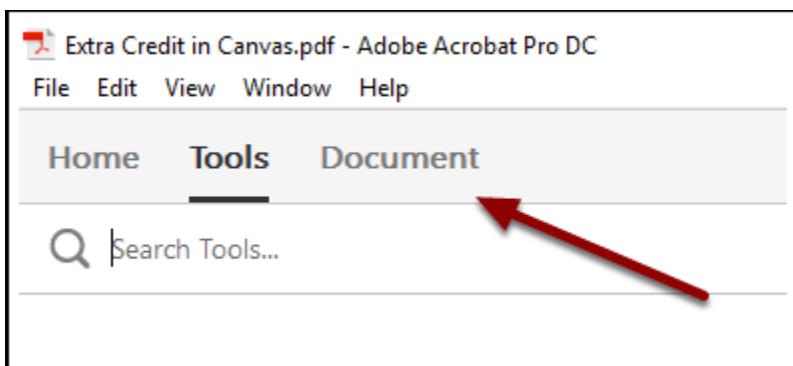
To add the accessibility tool, Click on the **Tools** Tab.



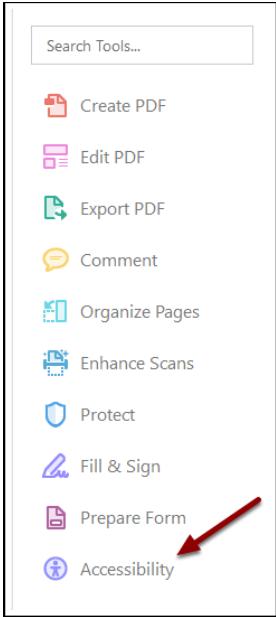
Click the **Add** button below the Accessibility Tool.



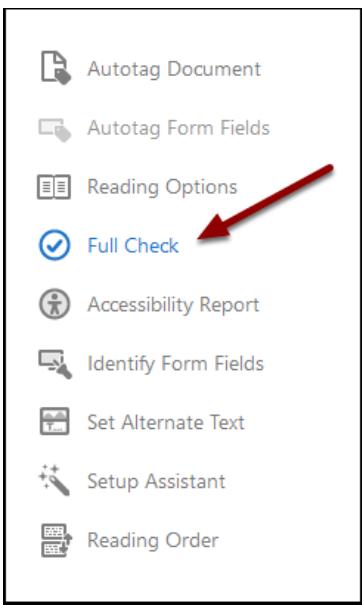
Click on the **Document** Tab to Return in the Document View



Step 3: Once the Accessibility Toolbar is added, Click on the **Accessibility Tool** in the Toolbar on the right side of the window.



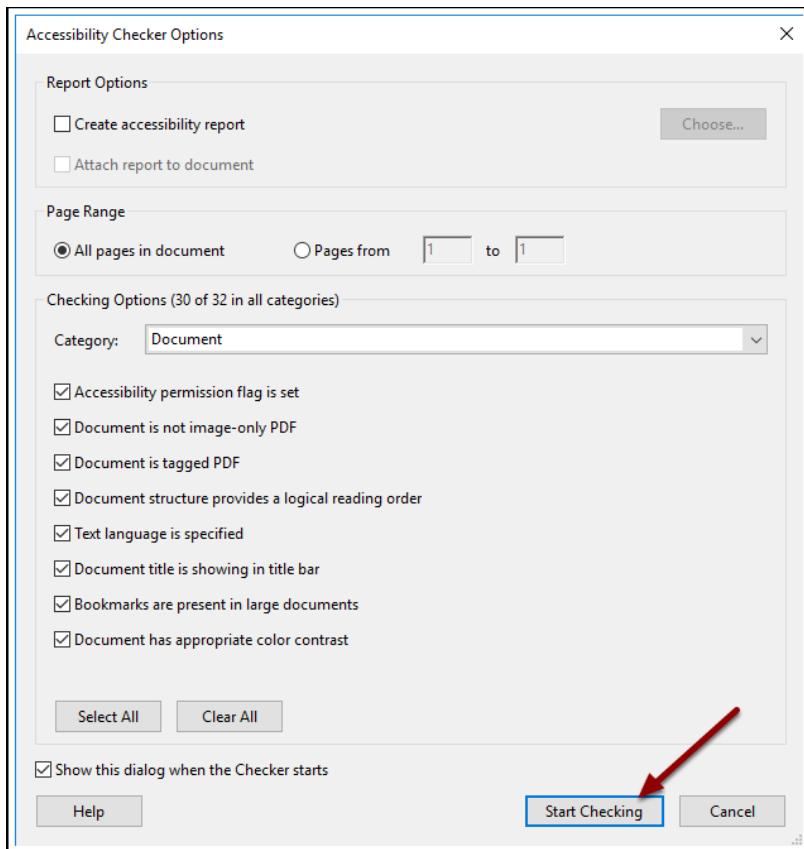
Step 4: Click on the **Full Check** option in the Accessibility Toolbar on the right side of the window.



Step 5: Click on **Start Checking** to run the Accessibility Checker.

This window also allows you to edit how the Accessibility Checker will run:

- Uncheck **Create accessibility report** if you do not want a separate report file to be generated.
- Click through the **Category** dropdown to view all the checking options.



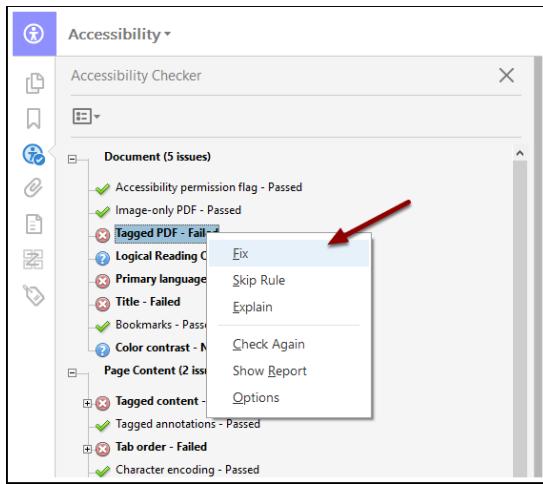
Step 6: To view the results, the Accessibility Checker panel will be opened on the left side of the window.

Step 7: Click on each category to expand that particular section:

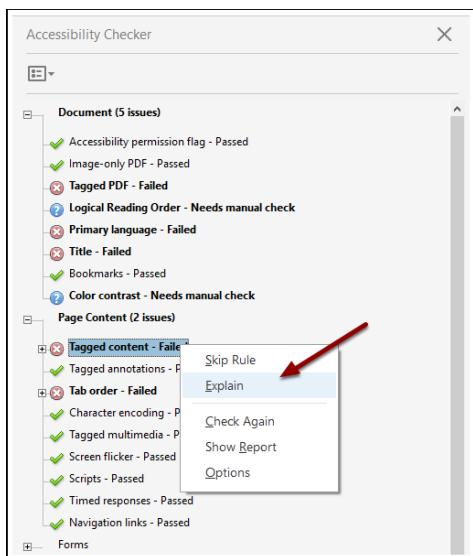
- A **green checkmark** indicates that the test passed.
- A **red cross mark** indicates that the test failed.
- A **blue question mark** indicates that the test must be done manually.

Some items can be fixed automatically by Acrobat, and some will need to be fixed manually.

Step 8: Right-click on each item to see if they can be automatically fixed.



Step 9: If the item cannot be fixed automatically, Right click and click on **Explain** to open the specific item's section in the Acrobat User Guide. You will find a description of the reported issue and directions on how to fix it.



Acrobat User Guide > Accessibility, tags, and reflow Select an article: ▾

Tagged content

This check reports whether all content in the document is tagged. Make sure that all content in the document is either included in the Tags tree, or marked as an artifact.

Do one of the following to fix this rule check:

- Open the Content  panel and right-click (Windows) or Ctrl-click (Mac OS) the content that you want to mark as an artifact. Then, select **Create Artifact** from the context menu. (To display the Content tab, choose View > Show/Hide > Navigation Panes > Content.)
- Tag the content by choosing Tools > Accessibility > Reading Order. Select the content, and then apply tags as necessary.
- Assign tags using the Tags  panel. Right-click (Windows) or Ctrl-click (Mac OS) the element in the Tags tree, and choose **Create Tag From Selection**. Items such as comments, links, and annotations don't always appear in the Tags tree. To find these items, choose **Find** from the Options menu. (To display the Tags panel, choose View > Show/Hide > Navigation Panes > Tags.)

VI. How to Add Headings & Subheadings

Heading and Subheading are added so that the student reading an E-Book can navigate through the Word file by jumping headings, sub headings and page numbers just like one would when reading a hardcopy print book.

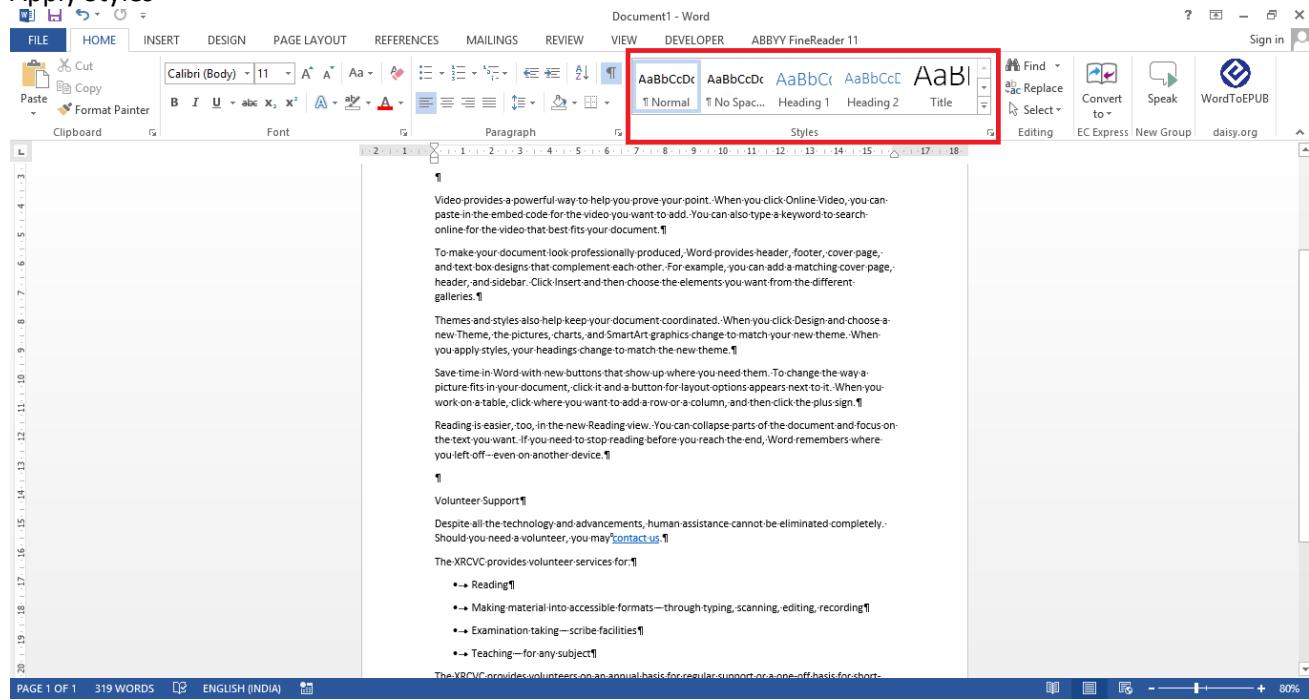
Step 1: Open the Microsoft Word document.

Step 2: Select the text or bring the cursor at the particular line which needs to be tagged as a Headings or Subheadings.

Step 3: Go to Home Tab of Word under styles section, choose the heading level hierarchy.

This can be done by selecting the Heading Levels in the Menu ribbon in Word as shown here.

Alternatively, you can use **Alt+Ctrl+1** for Heading 1, **Alt+Ctrl+2** for Heading 2, etc. or **Ctrl+Shift+S** to Apply Styles –



Follow the below mentioned heading level methods to give heading level.

If the book is divided into Parts / Units:

- **Heading 1:** Title of the Book
- **Heading 2:** Parts / Units /Section/Modules/ Copyright / Preface / Foreword / Acknowledgements / Messages by Editor / About the Author / Contents/Index of words/Glossary
- **Heading 3:** Chapter Number & Name/Worksheets/Revision/Review/Answers/Solutions
- **Heading 4:** Subsections

If the book is not divided into Parts / Units:

- **Heading 1:** Title of the Book
- **Heading 2:** Copyright / Preface / Foreword / Acknowledgements / Messages by Editor / About the Author / Contents / Index of words/Glossary/ Chapter Number & Name/ Worksheets/Revision/ Review/Answers/ Solutions
- **Heading 3:** Subsections

NOTE:

It is important that whatever system of level hierarchy is being followed should be followed for all volumes of a particular book.

VII. How to Insert Bullets and Sub-bullets from Auto tab

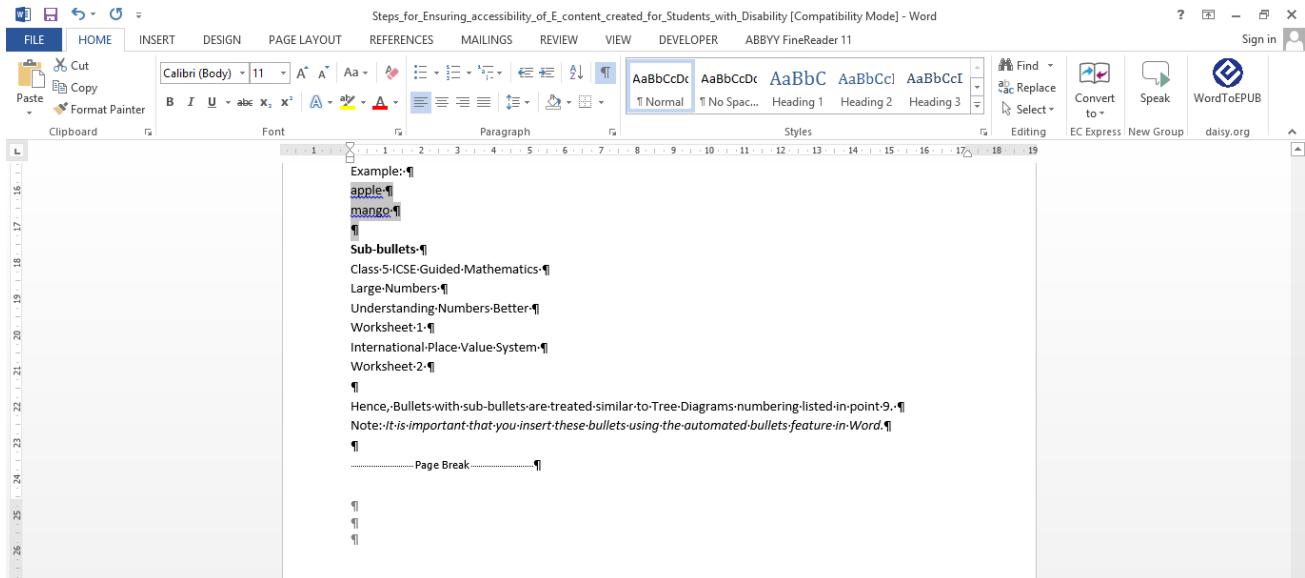
The various visual bullets typically inserted in Word can be made accessible to be read out by the Screen Reader.

Bulleted list

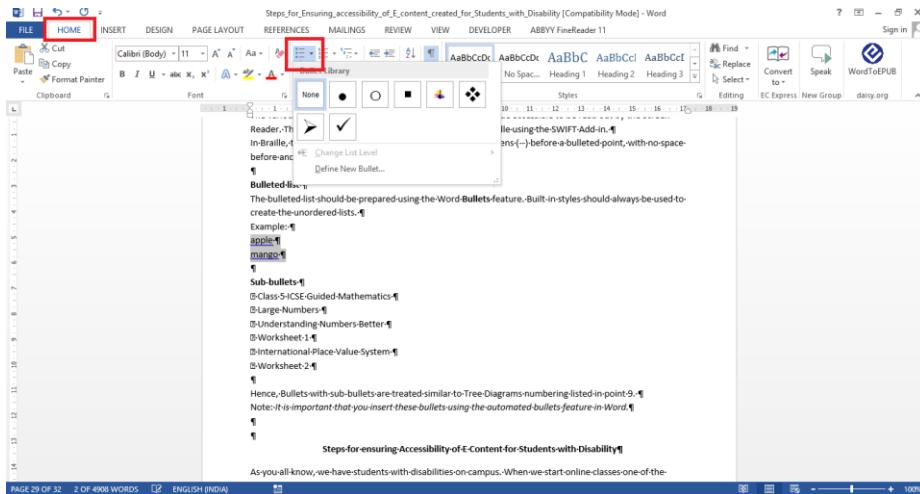
The bulleted list should be prepared using the Word **Bullets** feature. Built-in styles should always be used to create the unordered lists.

Step 1: Open the Document which has the content

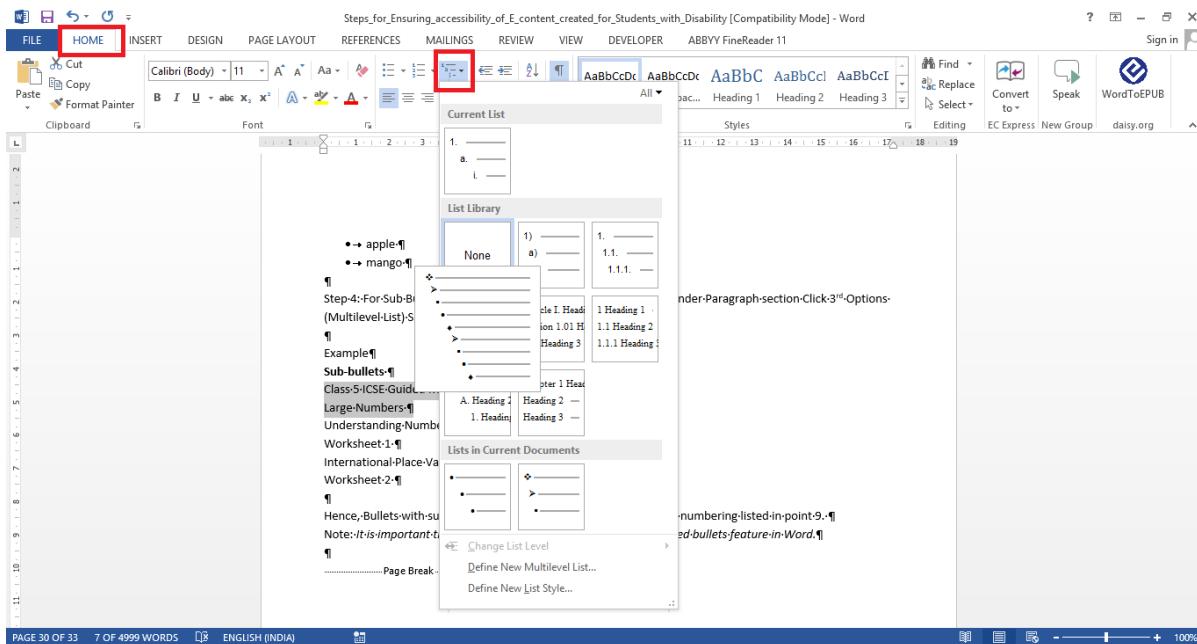
Step 2: Select the section / sentence / points to make bullets in.



Step 3: Go to the Home Tab under Paragraph section, 1st options icon will have 3 dots with lines (Bullets) with a down arrow button. Click the button, it will open the list of bullets. Select the desired bullets you want.



Step 4: For Sub Bullets (Multi Level List Bullets), follow the step 1 & 2 and Go to the Home Tab under Paragraph section Click 3rd Options (Multilevel List) Sub Menu or Down Arrow Button. Select the desired multi-level bullet list, than while typing press tab key to apply the automatic bullet style.



NOTE:

- It is important that you insert these bullets using the automated bullets feature in Word.
- If bullets are part of MCQ type of questions then the same need to be numbered rather than left as bullets

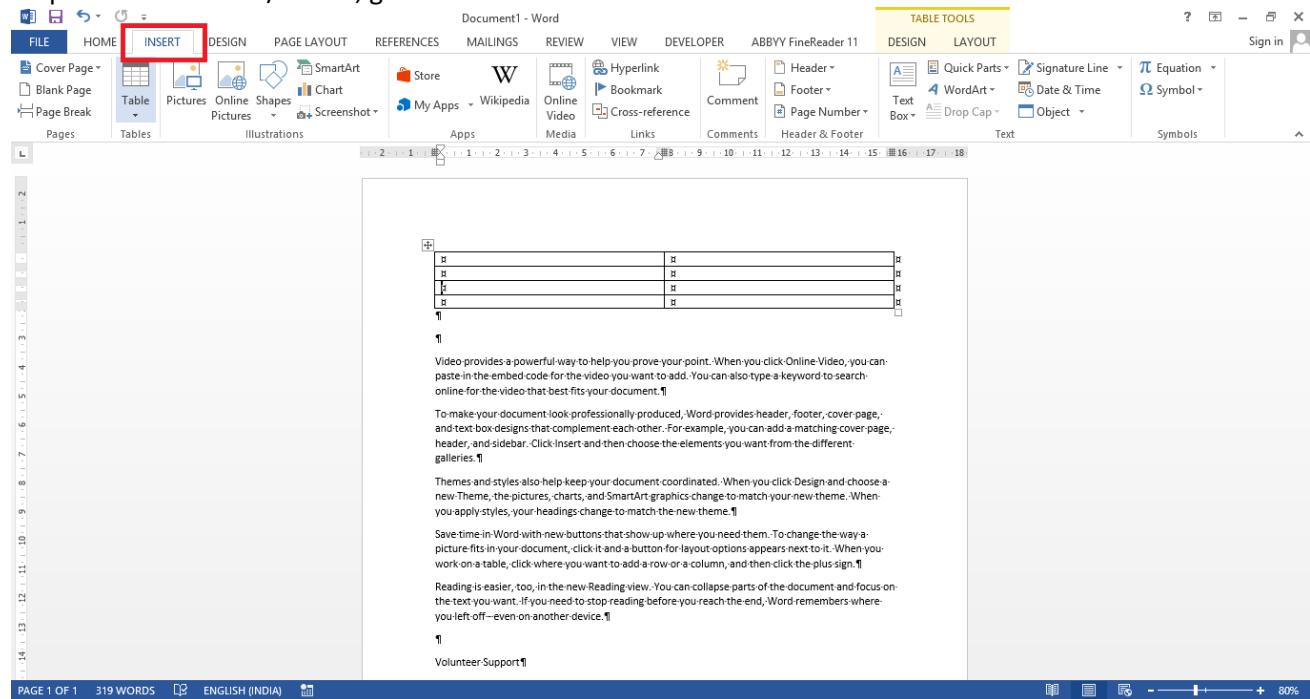
VIII. How to Insert Tables

One can easily navigate through tabular information in an E-Copy book using a Screen Reader which announces the Column number & Row number & the relevant information. On entering a table, the

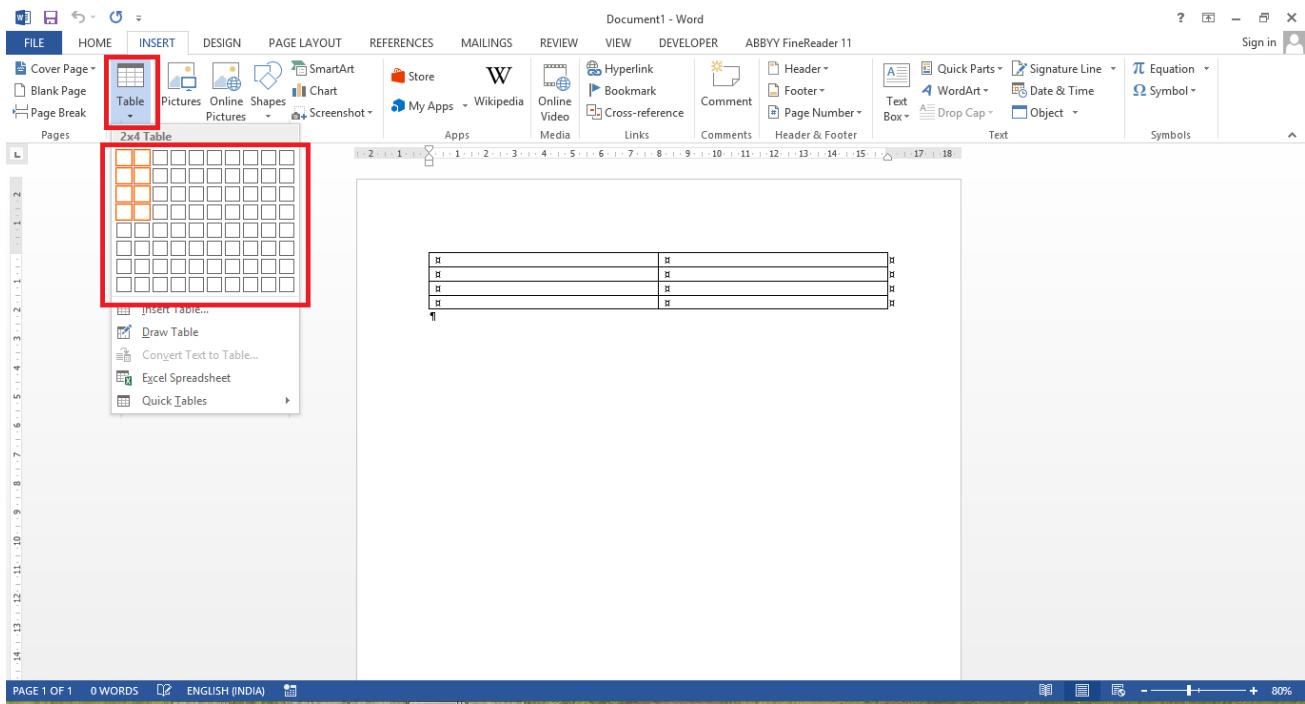
software gives an overview of the total number of columns & rows. However for the screen reader to access this correctly tables need to be inserted correctly.

Step 1: Open the Microsoft Word document.

Step 2: In the Ribbon / Menu, go to the **Insert** tab.

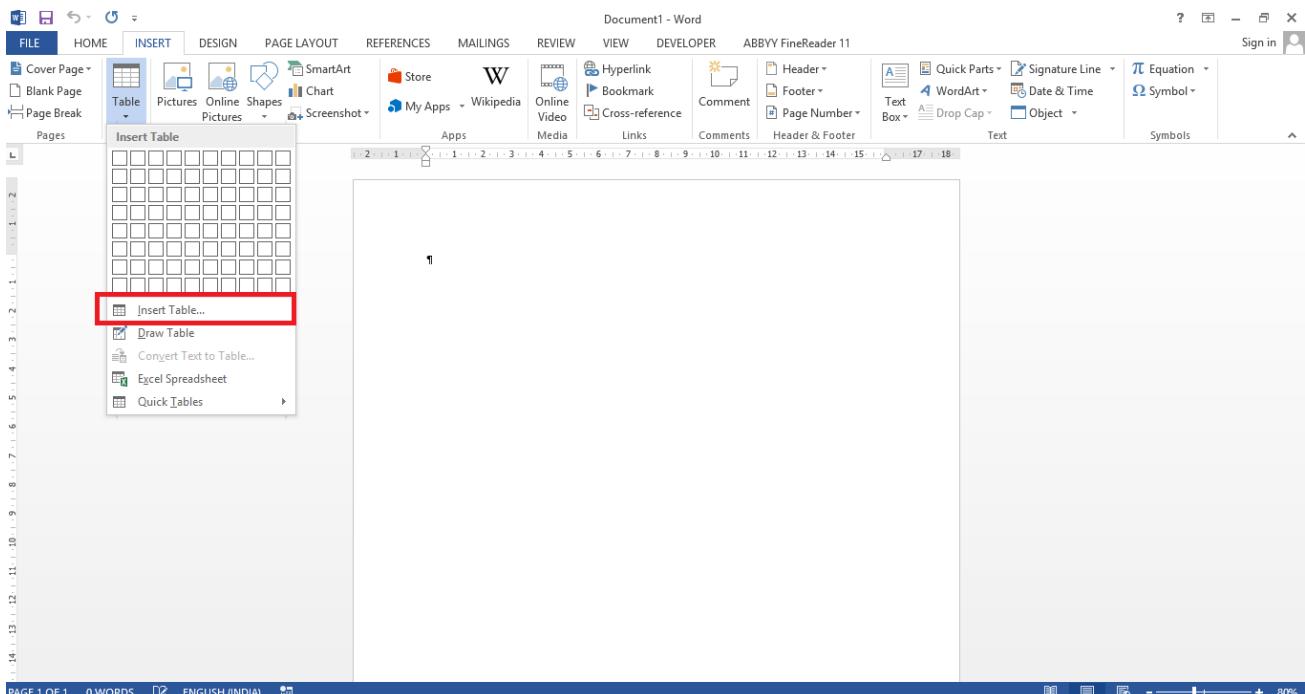


Step 3: Click on the Table dropdown & select the number of rows and columns from the grid, as required.

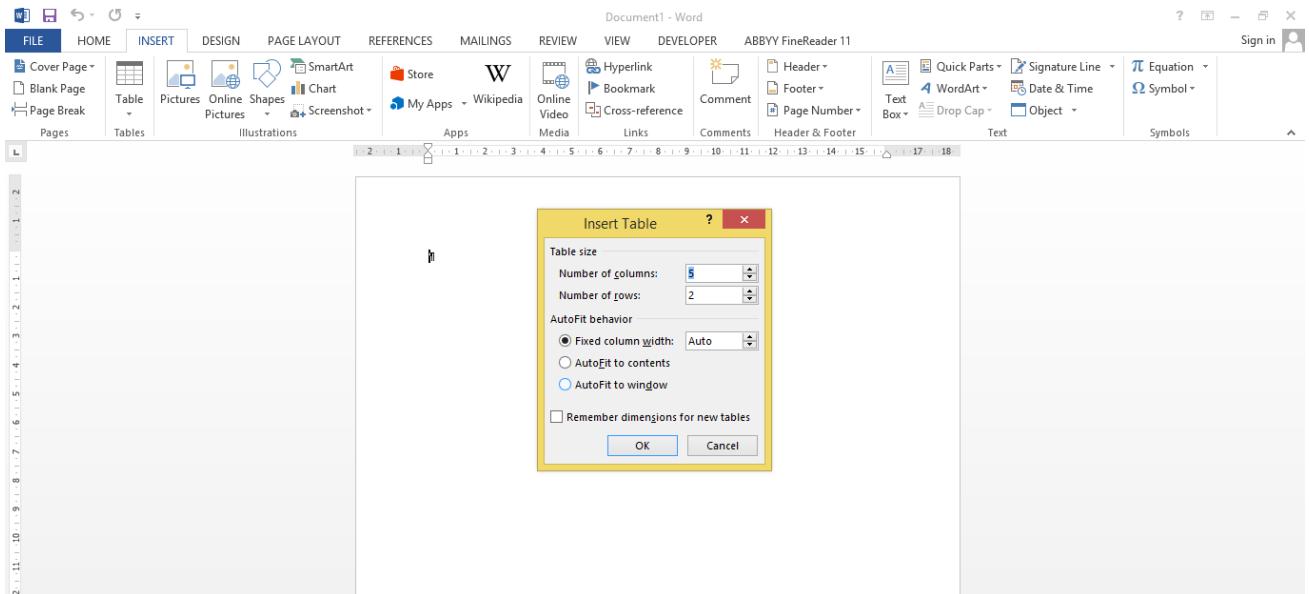


Or

Click on the Table dropdown and click on insert table options.



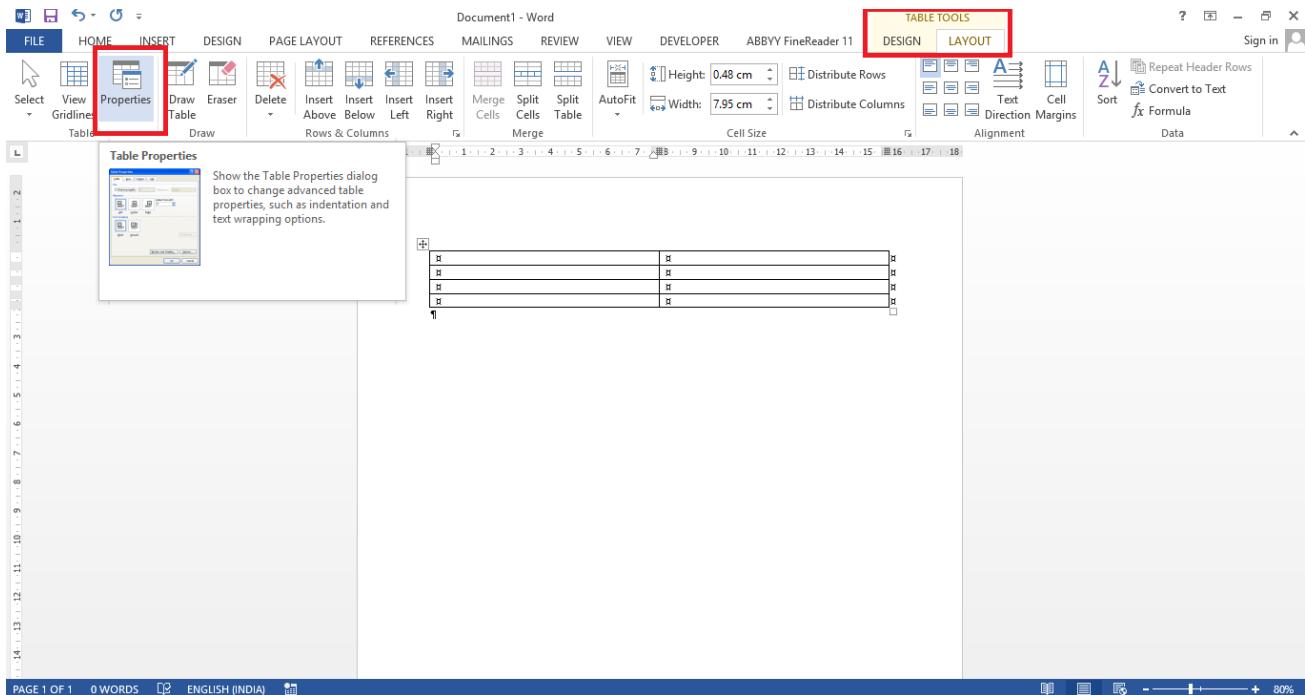
Step 4: After Clicking the Insert Table option it will open a dialog box where you have to enter the Number of Columns & Number of Rows



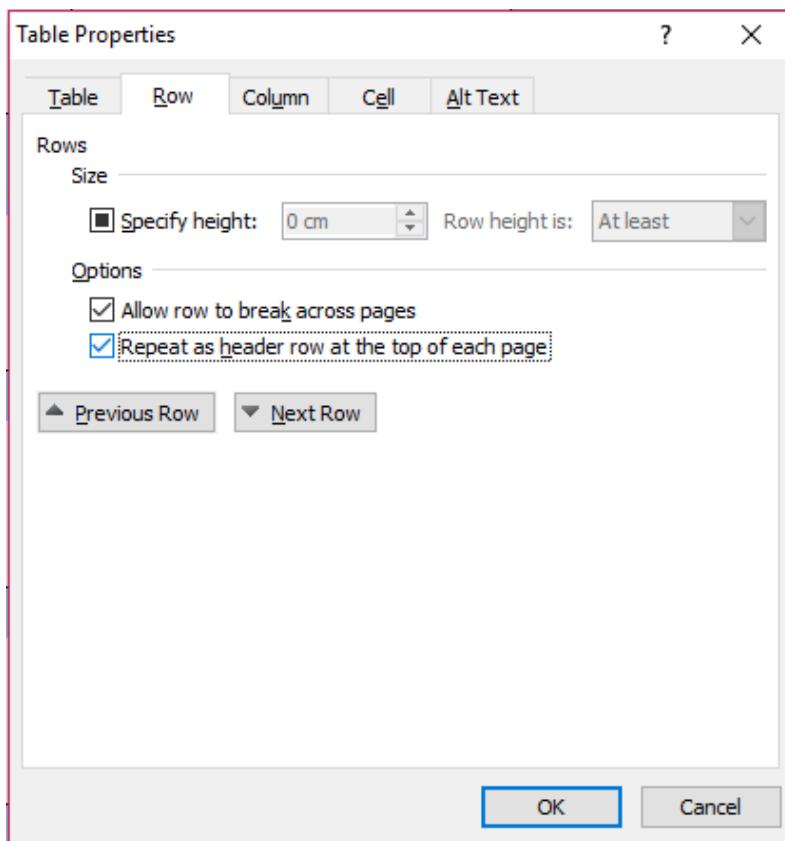
NOTE:

When a table spans over two or more pages the header row must be repeated on every page.
 To achieve the following, go to Table Tools tab, then click **Properties (Under Table Section)**, and check the '**Repeat as header row at the top of each page**' option under **Row tab**.

Select the table working on. It will lead to automatic opening of Table Tools tab. Select the Layout Tab within it



Within the layout table select the Table Properties Dialogue and check the repeat as header row at top of each page option



NOTE:

It is IMPORTANT that you do not try to achieve this manually.

Use tables for all topics where one needs to read the columnar information line wise.

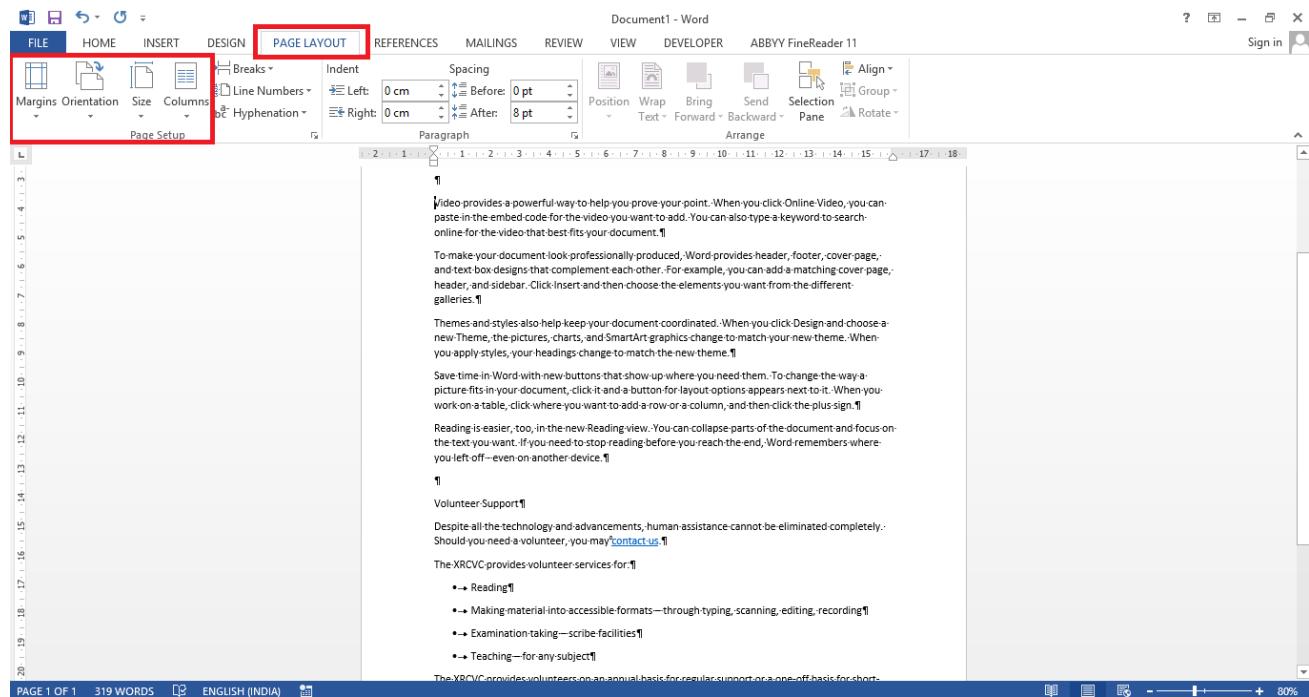
IX. How to Inserting Page Numbers

When students with disabilities use an E-Book we need to ensure that they can navigate the page numbers of the book the same as others.

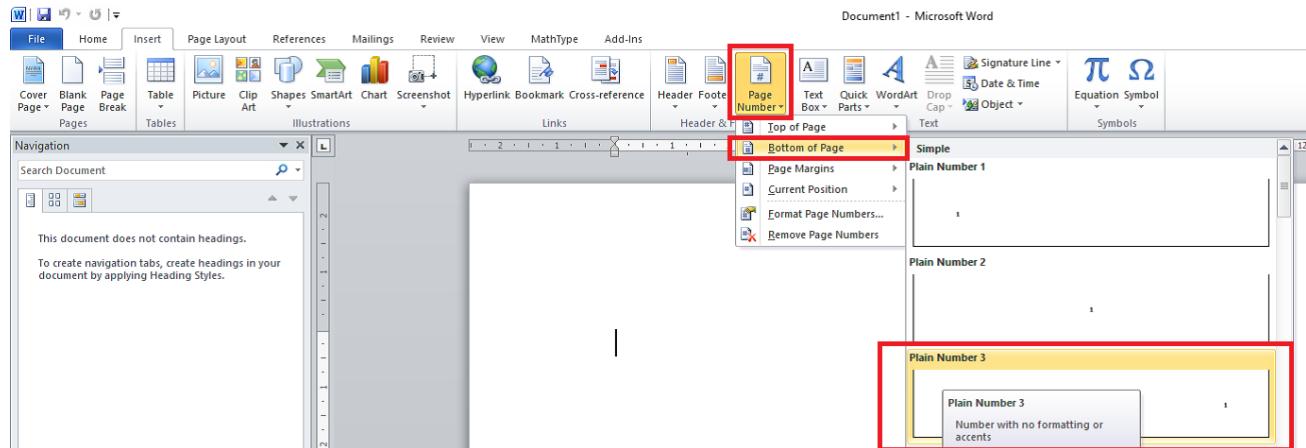
Step 1: Open the Microsoft Word document.

Step 2: The content of a print page must be fitted within one Word page and separated with the next and previous with a **page break**. To achieve the following;

- the size of the page can be increased in Word (Under the **Page Layout** tab, choose a bigger paper size under **Size** in the **Page Setup** group)
- the margins of the page can be widened
- the font size of the text can also be decreased in case the text still spills onto the next page.



Step 3: Insert page numbers as footers using the **Page Number** option in the **Header & Footer** group under the **Insert** tab. Select the third option – **Plain Number 3**.



NOTE:

To leave pages unnumbered, for example, the copyright and cover pages, a section break would be required.

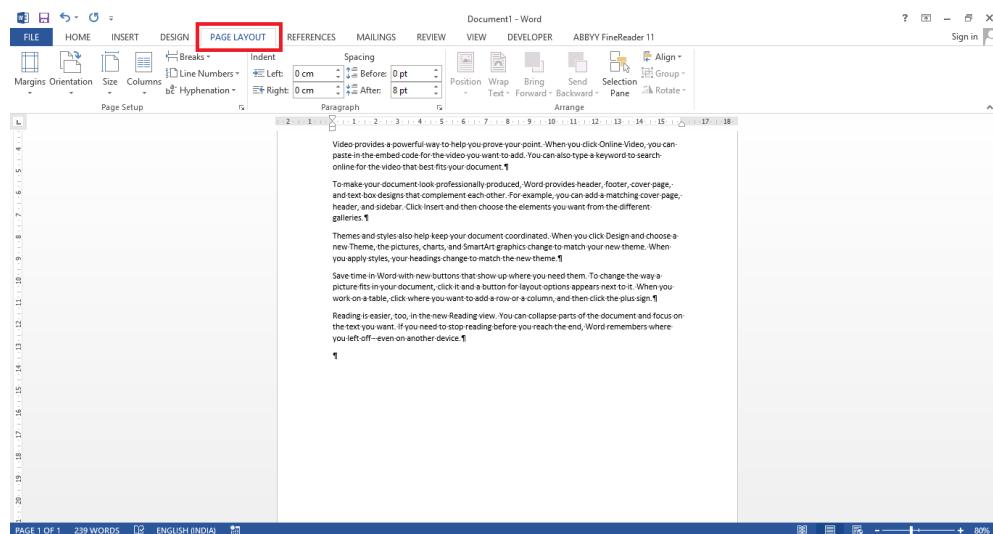
X. How to Set Single Columns Document in Microsoft Word

As far as possible try to keep document in the Single Columns view instead of Multiple Columns view. For SwD it become easier to navigate in document. Below are the steps to make document in a single columns view

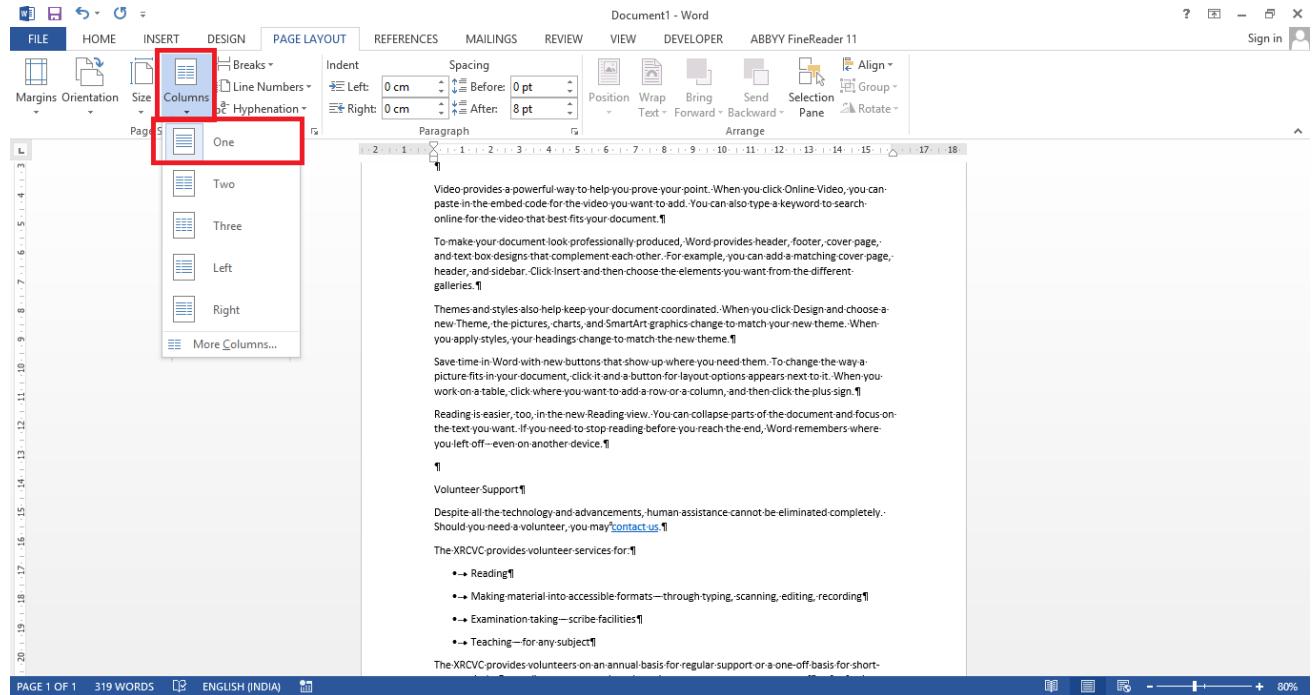
WHAT TO DO

Step 1: Open the Microsoft Word

Step 2: Go to Page Layout Options

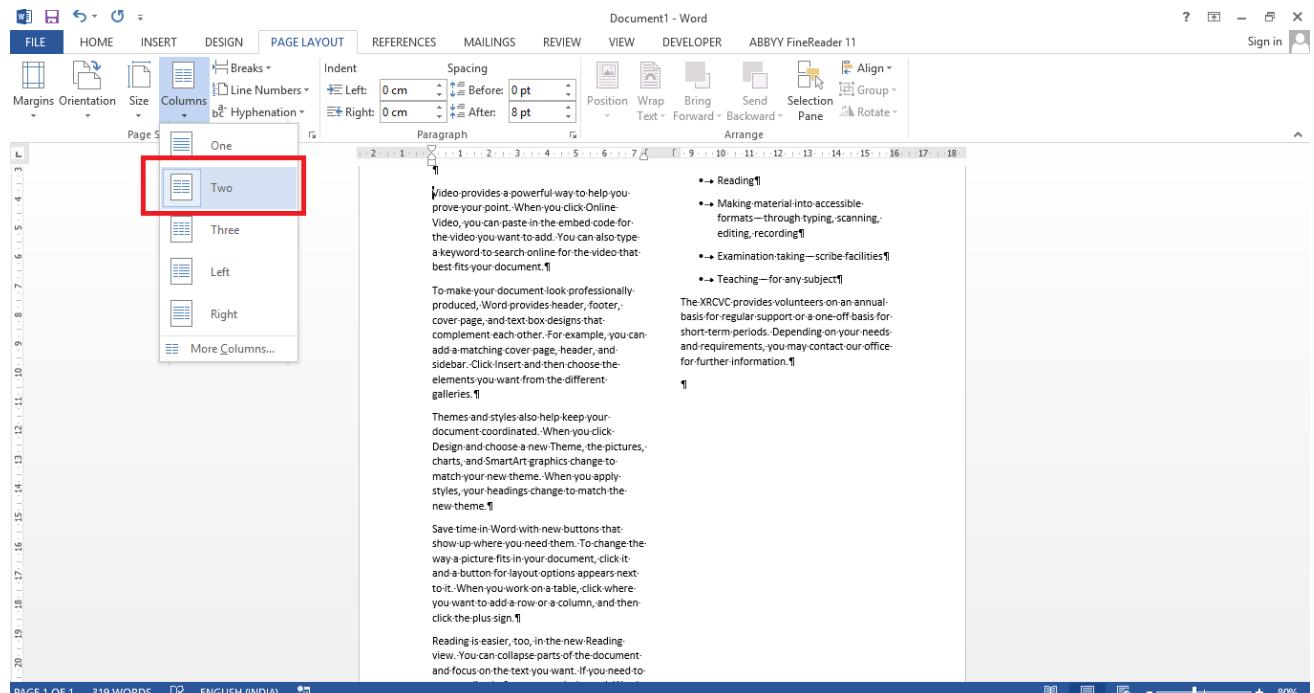


Step 3: Click Columns Drop Down button to open the list of columns. Click the option **One** & it will instantly apply it to the page. The text will be presented in single column view as shown in below image.



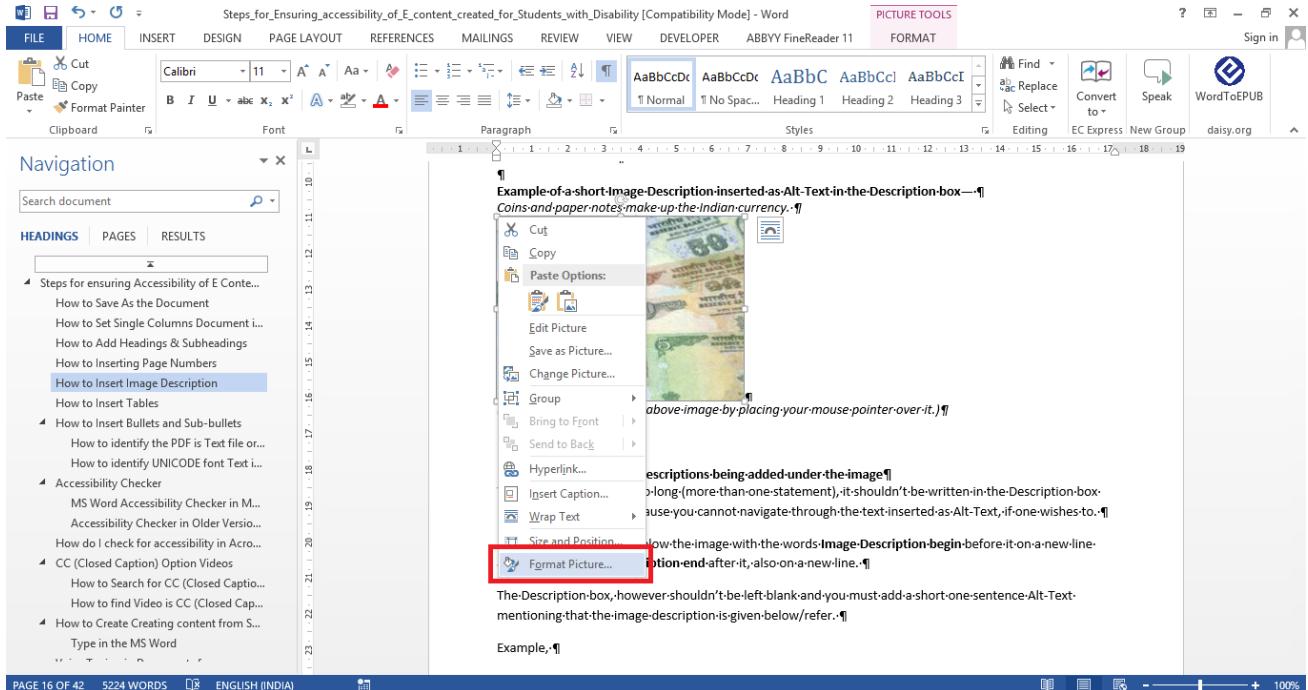
WHAT NOT TO DO

Step 3: Do not select the Multiple Column View in the Column tab



XI. How to Insert Image Description

Step 1: Click on image then right-click to and click on Format Picture as shown below



Step 2: In the Format Picture dialog box, choose Alt Text.

Image 1: For Microsoft Word 2010 User

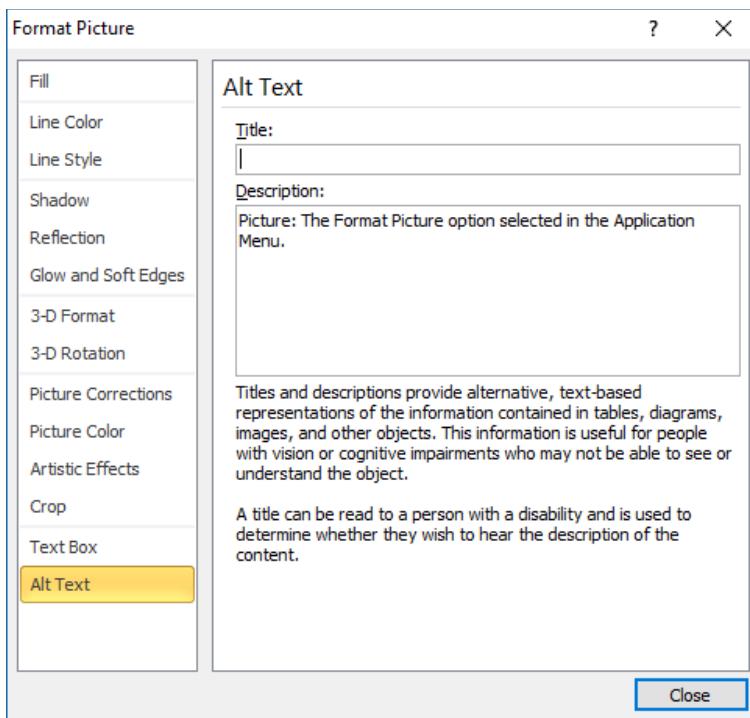


Image 2: For Microsoft Word 2013 or Above

Step 3: Add the image description in the Description box.

Example of an Image Description:



NOTE:

To know more about doing effective image descriptions please refer: www.diagramcenter.org

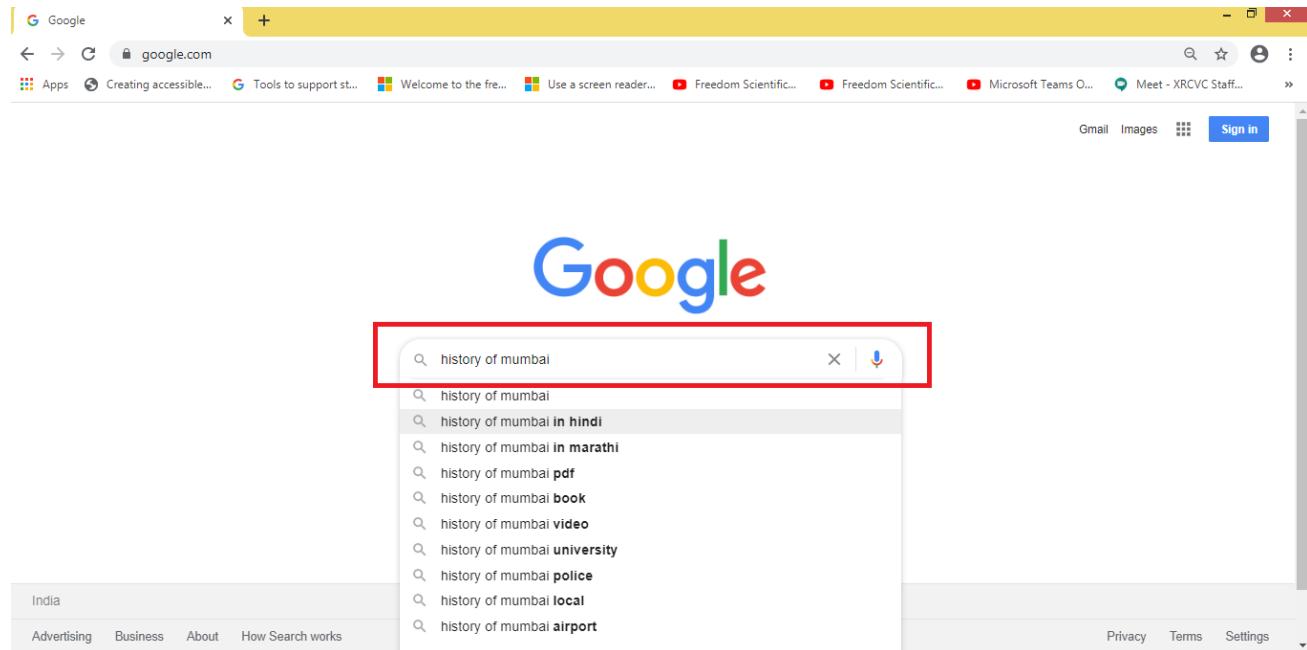
XII. How to Search for CC (Closed Caption) Option Videos

Pick videos that have **Closed captioning (CC)** and **subtitling**. Both these are processes of displaying text on a video screen, or other visual display. This is helpful for Hearing Impaired Student

How to Search for CC (Closed Caption) videos in Google.

Step 1: Open the google search page.

Step 2: Type the name of video in search box



Step 3: Click on the more button to locate the videos section. Sometimes the video section shows directly in results.

Image 1: Video tab in the More Button

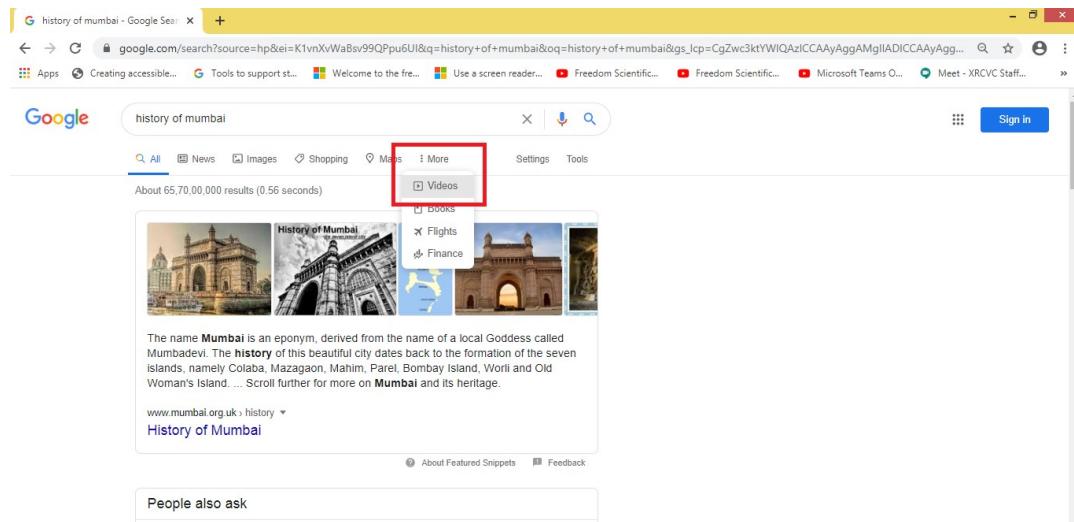
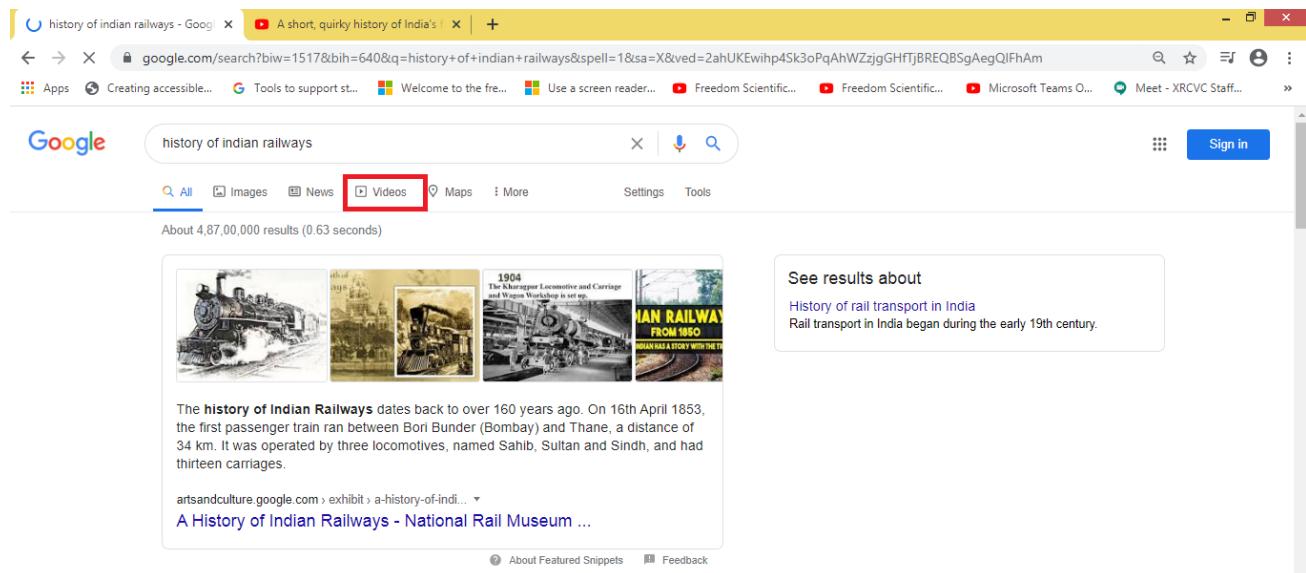


Image 2: Video Tab in the Search Page itself



Step 4: Click on the tools button which is next to the settings button. Then it will show more options in the result page such as (Any Duration, Any time, Any Quality, All Videos, Any Source) for filtering the results.

Select All Video options sub menu button or down arrow button.

Google history of mumbai

history of mumbai

Q All News Images Shopping Videos More Settings Tools

All duration Any time Any quality All videos Any source

History of Mumbai from an Arabian seaport to Bollywood ...
<https://www.britannica.com> > Videos > Geography & Travel
 Discover how Mumbai's past sovereignty issues have shaped it into a dominant trade and travel hub. This ...
 Nov 12, 2019

History of Mumbai - YouTube
<https://www.youtube.com/watch>
 Haji Ali Dargah Ziarat & History - Mumbai Famous Dargah - Ibaadat. Shemaroo Ibaadat ... Sep 28, 2017 - Uploaded by WTD News

History of Mumbai - YouTube
<https://www.youtube.com/watch>
 This feature is not available right now. Please try again later. Published on Jul 27, 2013. history, mumbai ... Jul 27, 2013 - Uploaded by forthproductions

Step 5: It will open the sub menu with options All videos (Tick or Checked) & Closed Captioned (Not Tick or Unchecked). Click on Closed Captioned button in submenu. It will start to show up CC Videos in pages.

Google history of mumbai

history of mumbai

Q All News Images Shopping Videos More Settings Tools

All duration Any time Any quality All videos Any source

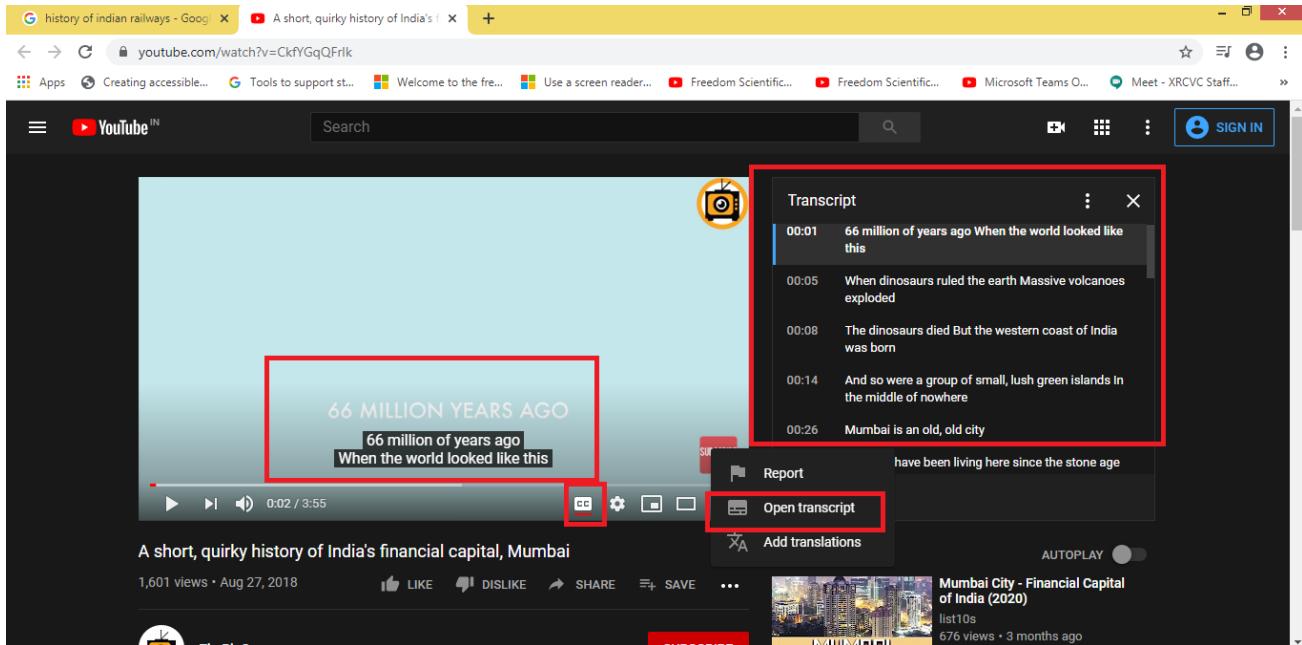
History of Mumbai from an Arabian seaport to Bollywood ...
<https://www.britannica.com> > Videos > Geography & Travel
 Closed captioned
 Discover how Mumbai's past sovereignty issues have shaped it into a dominant trade and travel hub. This ...
 Nov 12, 2019

History of Mumbai - YouTube
<https://www.youtube.com/watch>
 Haji Ali Dargah Ziarat & History - Mumbai Famous Dargah - Ibaadat. Shemaroo Ibaadat ... Sep 28, 2017 - Uploaded by WTD News

History of Mumbai - YouTube
<https://www.youtube.com/watch>
 This feature is not available right now. Please try again later. Published on Jul 27, 2013. history, mumbai ... Jul 27, 2013 - Uploaded by forthproductions

How to Check if a YouTube Video has CC or Not

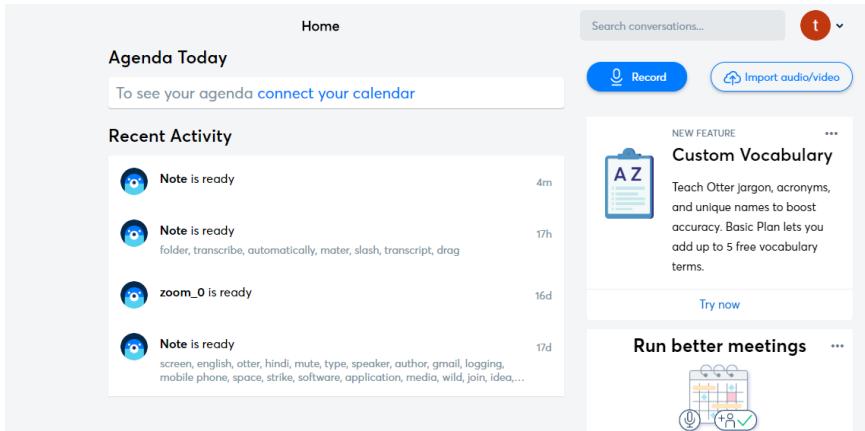
On opening a video in YouTube you can see number of buttons. If there is CC button next to the settings button then the video has CC. In this case you can also choose Open transcripts from the More menu which will open up transcripts to the right of the video.



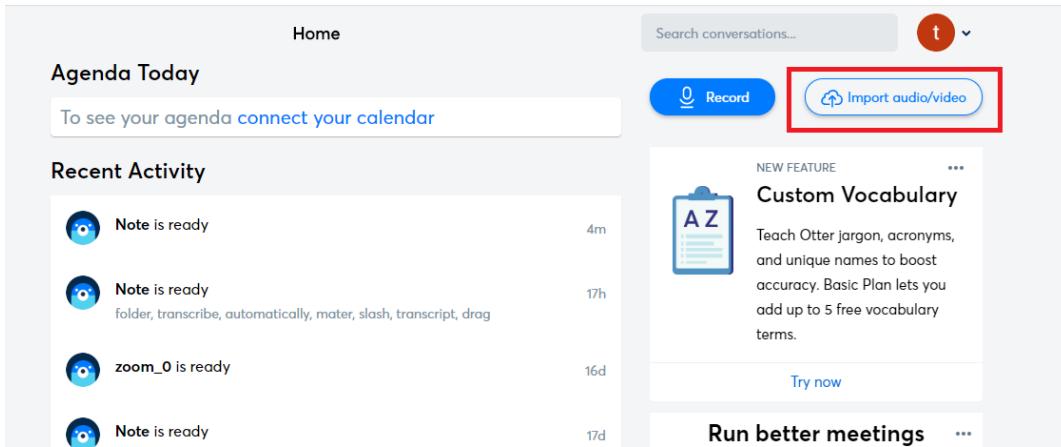
XIII. Creating Closed Captions for Videos

How to Generate Audio/ Video Transcript from Otter

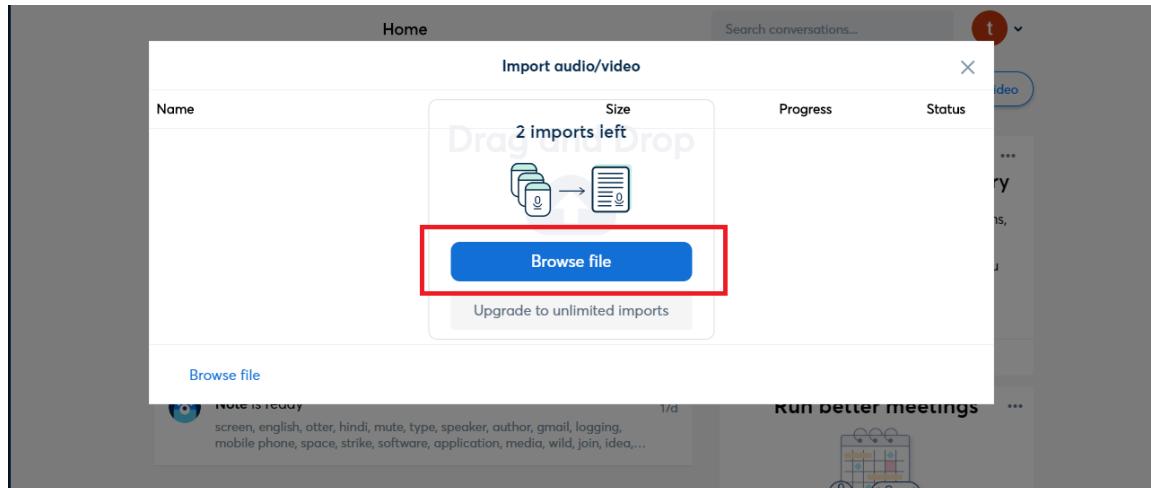
Step 1: Login Open Otter



Step 2: Click on Audio / Video Import Button in which is located on the right corner of the page.



Step 3: Click on Browser button dialog box then Upload the file from your PC.



Step 4: The time taken to convert the file will depend upon the file size: Once it is done you can download the transcription file.

The screenshot shows a transcription interface. At the top, there's a 'Note' button, a search icon, an 'Edit' button, and a more options icon. Below is a list of transcriptions:

- Speaker 1 1:29**: Can you just can you just join in the wild phone so you can see, of what is happening.
- Speaker 1 1:44**: But what you can see at least this part here, whatever I'm trying to say. And what is getting typed in the notes so you will get an idea.
- Speaker 1 2:00**: I think so you can mute your mobile phone speaker.
- Speaker 1 2:04**: And you can see the. You can see the screen now. So whatever I'm trying to say. The explanation

At the bottom, there's a timeline from 0:00 to 2:34, a volume slider set to 1x, and playback controls (rewind, play, fast forward).

NOTE:

- You can also use Otter using the method presented in use of Google Docs to generate transcripts in the next section.
- To know more about how to generate Audio/video Transcription using Otter you can watch the Demo Video- <https://www.youtube.com/watch?v=ATmSbXydAY8>

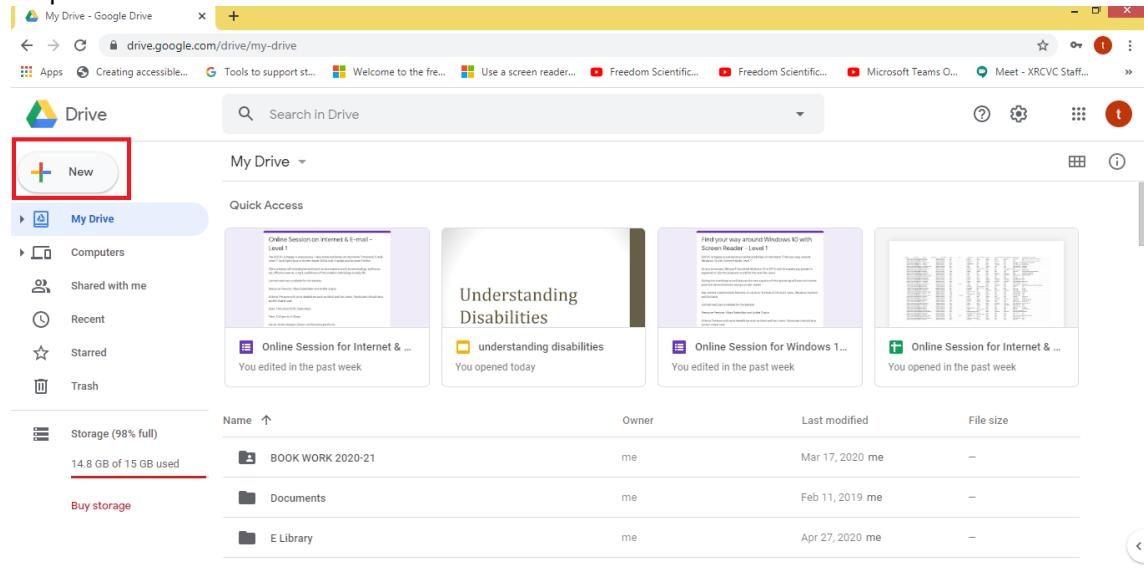
How to Generate Transcript with Google Docs

This voice typing feature is only available in Chrome browsers. (As per Google)

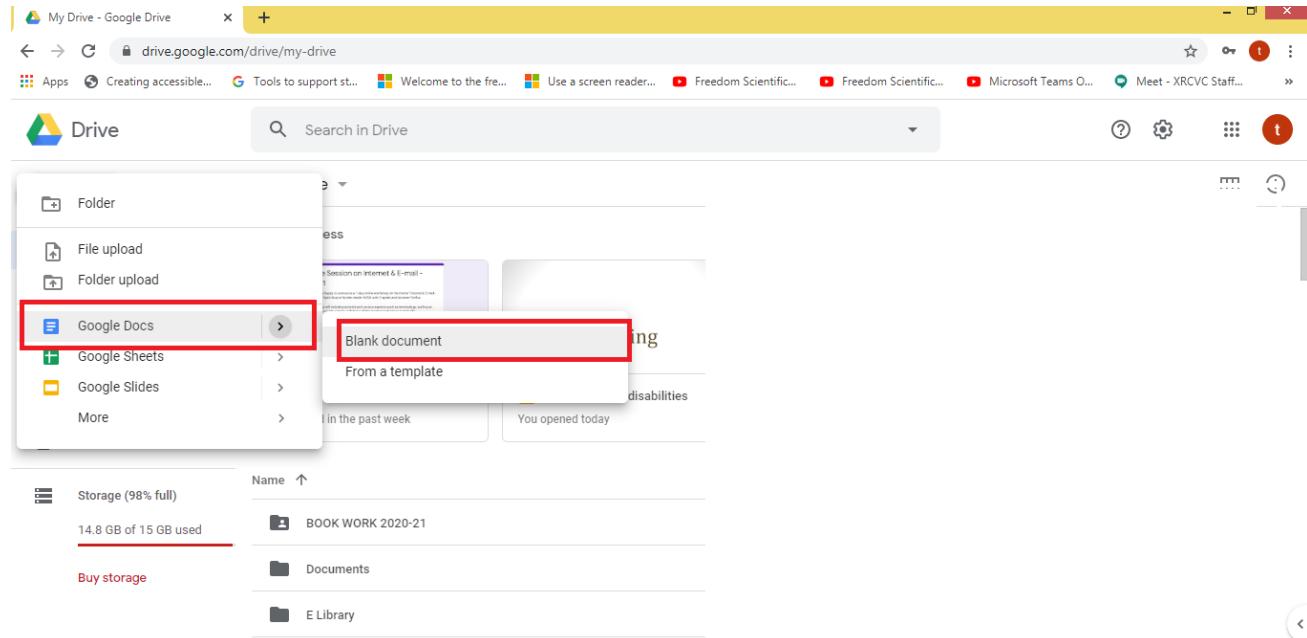
Step 1: Open your Google Chrome Browser.

Step 2: Login with your e-mail ID to Drive or Visit this link <https://drive.google.com/> Or Login to Gmail then click on app button and click drive icon.

Step 3: Go to Drive then Click “New” Button

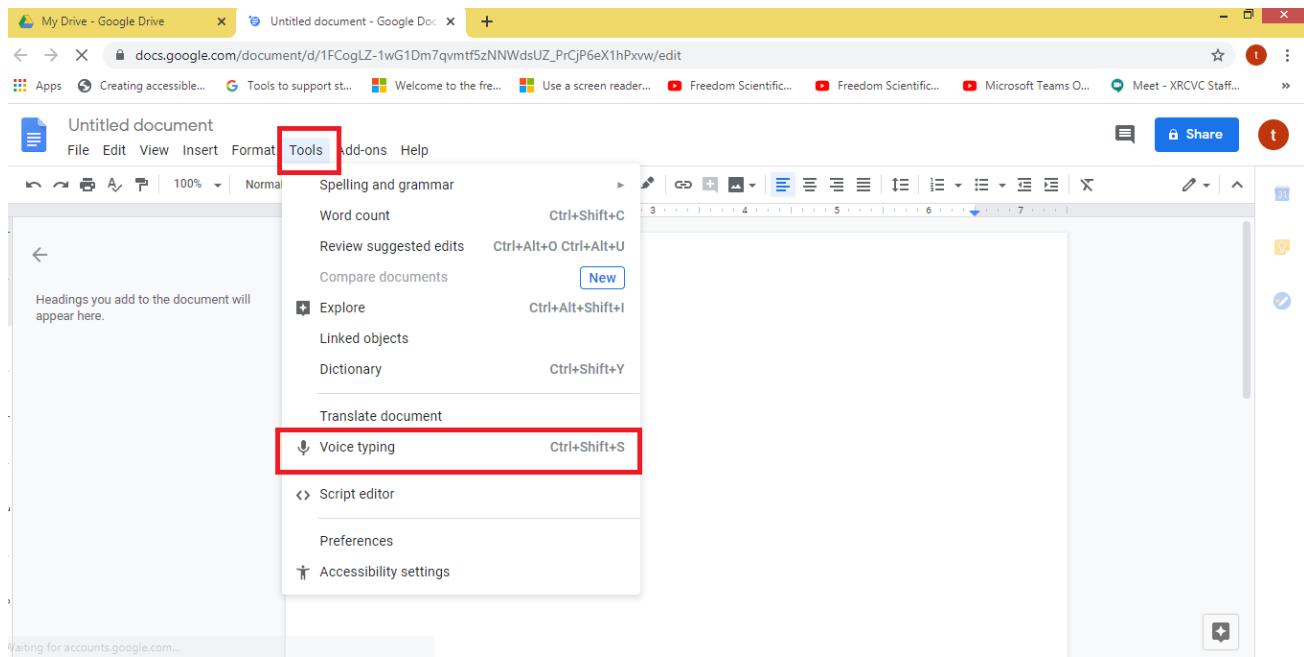


Step 4: It will open a list showing various options. Such as Folder, File Upload, Folder Upload, Google Docs, Google Sheets, Google Slides, More. Click or Press Down Arrow to select Google Docs and press enter on it. It will open new Document in a New TAB of the browser.



Step 5: Go to the Tools Menu and either click on tools or Press Shift + Alt + T in google docs, then press down arrow keys to Enable Voice Typing options.

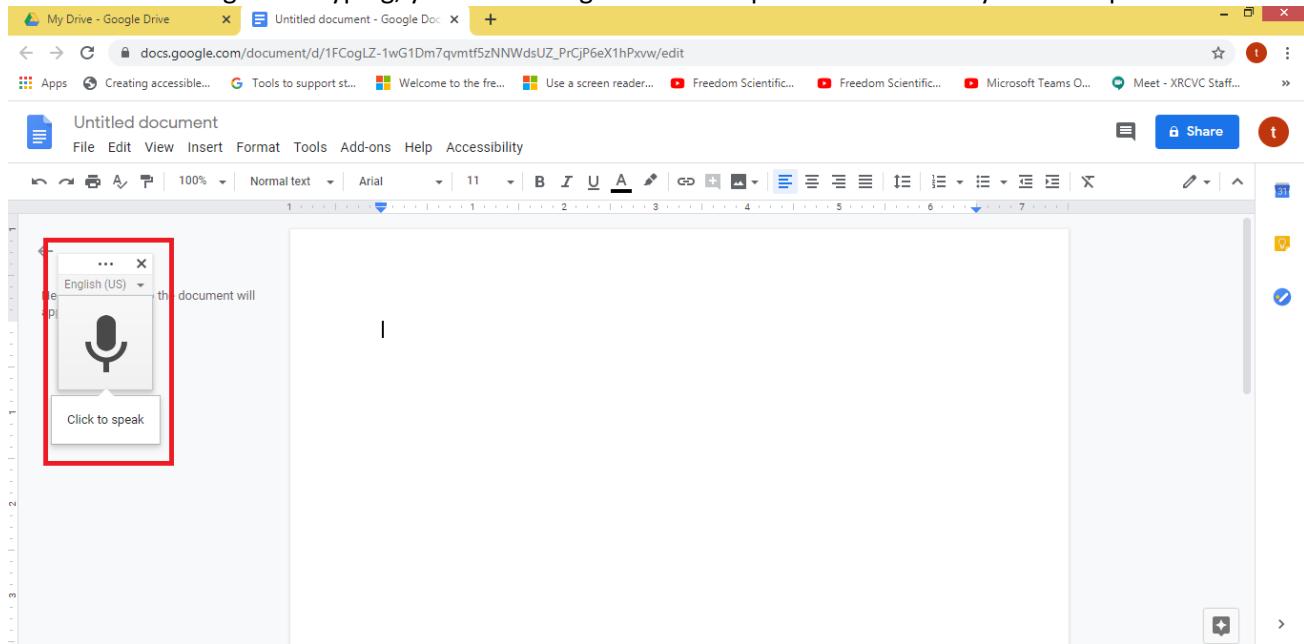
Shortcut to activate Voice typing, - Ctrl+Shift+S in Windows or Command+Shift+S in macOS.



Step 6: A window with a microphone icon will appear; click on it when you're ready to dictate. You can move the tool out of the way by clicking and dragging the window wherever you want.

NOTE:

The first time using Voice Typing, you'll need to grant Chrome permissions to use your microphone.



Step 7: Voice typing processes your voice in real-time. You will have to right click on speaker icon in the taskbar. It will list out options such playback Device, Recording devices, sounds etc for Windows 8.1 or Lower Version. For windows 10 options it will show Playback settings, open volume mixer etc.

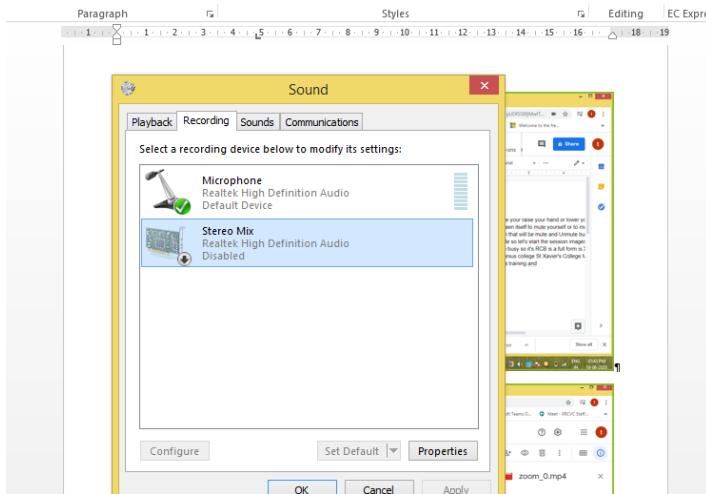
Click on Playback Device in windows 8.1 or lower version OS. Click on open sound settings in windows 10. It will open a window called sound.

- Click on the recording tab.

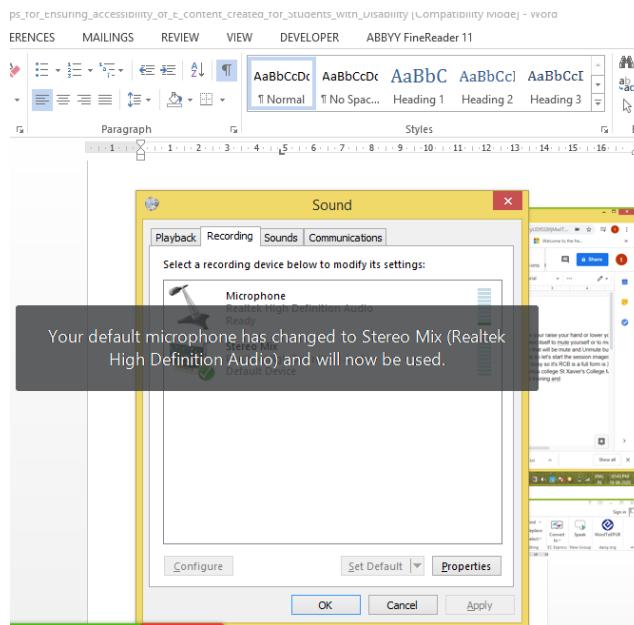
- It will show microphone (active) & stereo mix (it will be disabled) options inside the box.
- Right Click on Stereo Mix and click on enable button.

NOTE:

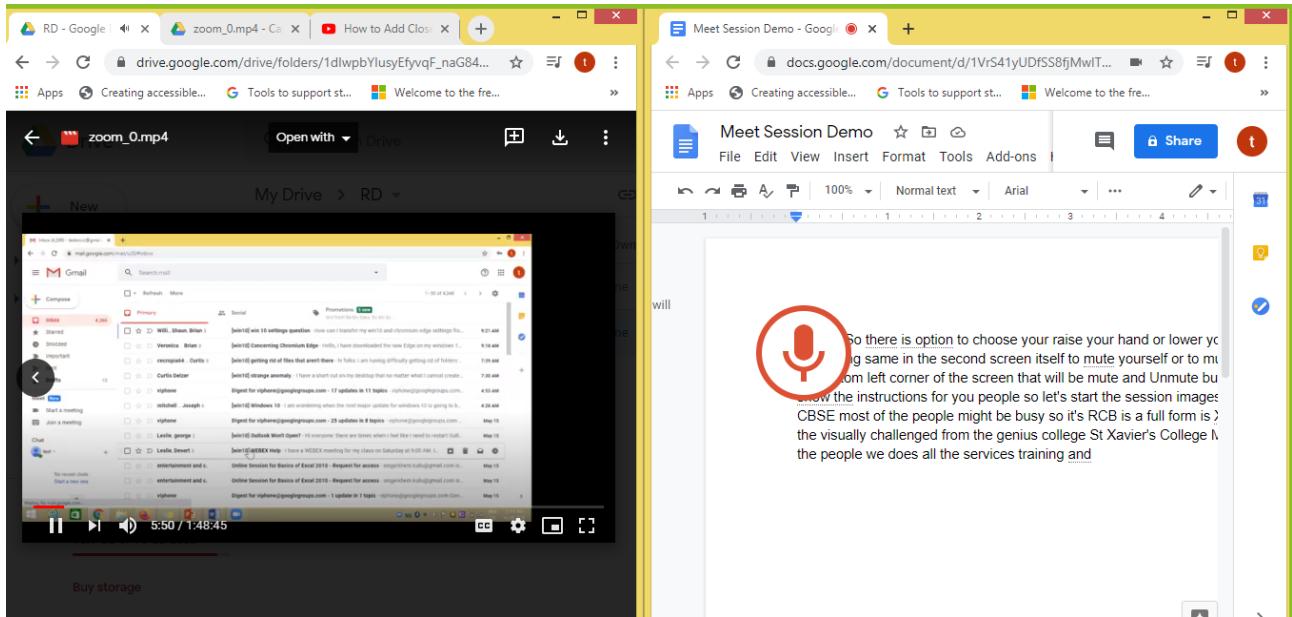
If this option is ON you cannot use microphone for speaking. To activate the microphone , right click and enable it.



Step 8: It will prompt on screen that your default microphone has been changed to Stereo.



Step 9: Divide the window by Opening the Video Tab window for the Left side view and Google docs Right side view. Play the video and click voice input button to start voice typing of google docs. It will automatically start to type the transcript by listening to the video audio.



Step 10: After finishing the transcript, Click typing button to stop. Your file will get automatically saved.

NOTE:

You can use the Google Docs Transcript Demo Video to learn more -
<https://www.youtube.com/watch?v=erx9czQsY2Q>

How to Use Veed.io to generate CC (Closed Caption / Transcript / Subtitle)

Veed does not require you to login to an account for editing or generating transcript for small video. Size limit is 50 MB with Max 10 Mins video.

Website link - <https://www.veed.io/>

Step 1: Open the Veed.io Website or Visit the <https://www.veed.io/>

Step 2: Click on Upload video button

The easy way to create stunning videos, add subtitles and grow your audience. Get started now, no account required.

Step 3: Select the video & Press Open button in dialog to process the uploading.

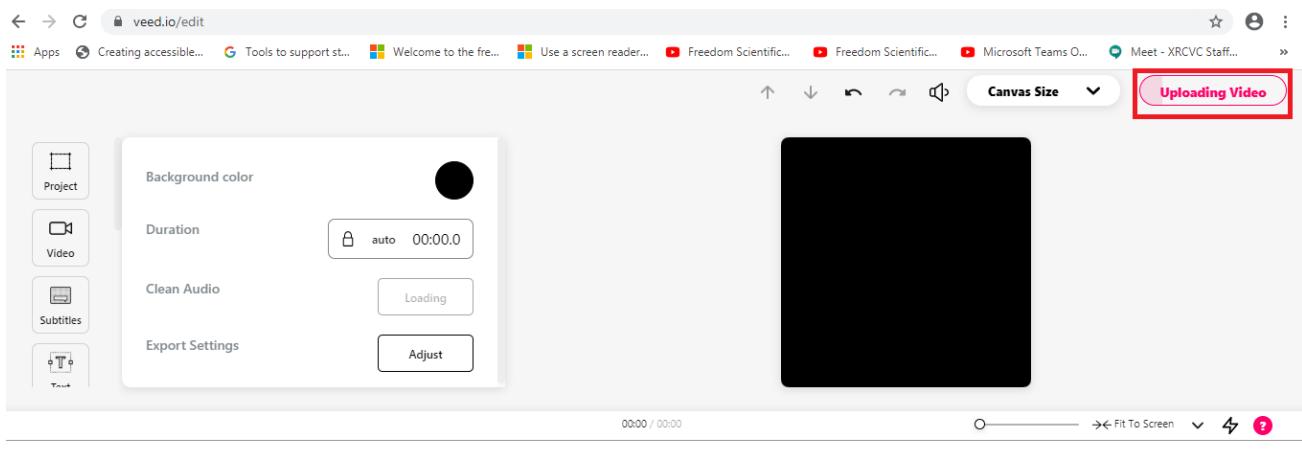
This website uses cookies. Find out more about cookies used on this website [here](#)

File name: Custom Files

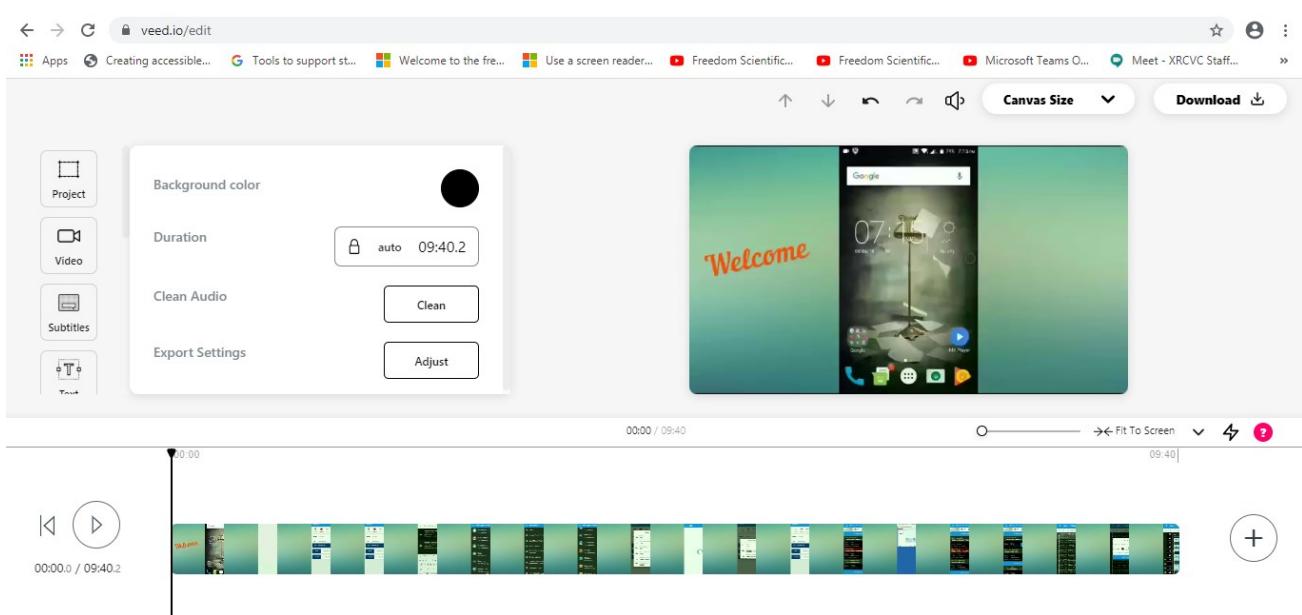
Open Cancel

The easy way to create stunning videos, add subtitles and grow your audience. Get started now, no account required.

Step 4: New page will open with showing the video uploading status on top right corner & once the video is uploaded it will show the video clip

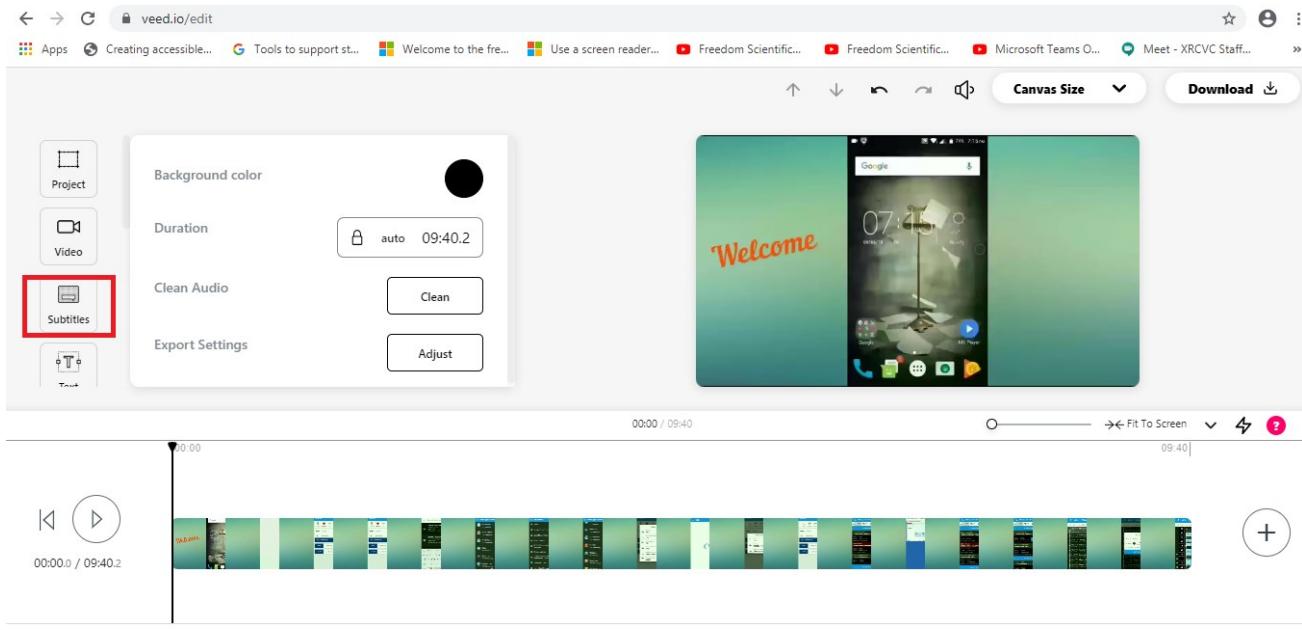


The screenshot shows the veed.io video editor interface. At the top right, there is a red box highlighting the "Uploading Video" button. On the left, there are four project management buttons: Project, Video, Subtitles, and Text. In the center, there are settings for Background color (black), Duration (auto, 00:00.0), Clean Audio (Loading), and Export Settings (Adjust). To the right is a large black preview area. Below the preview is a timeline bar showing 00:00 / 00:00. At the bottom, there are playback controls (rewind, play, fast forward) and a zoom button.

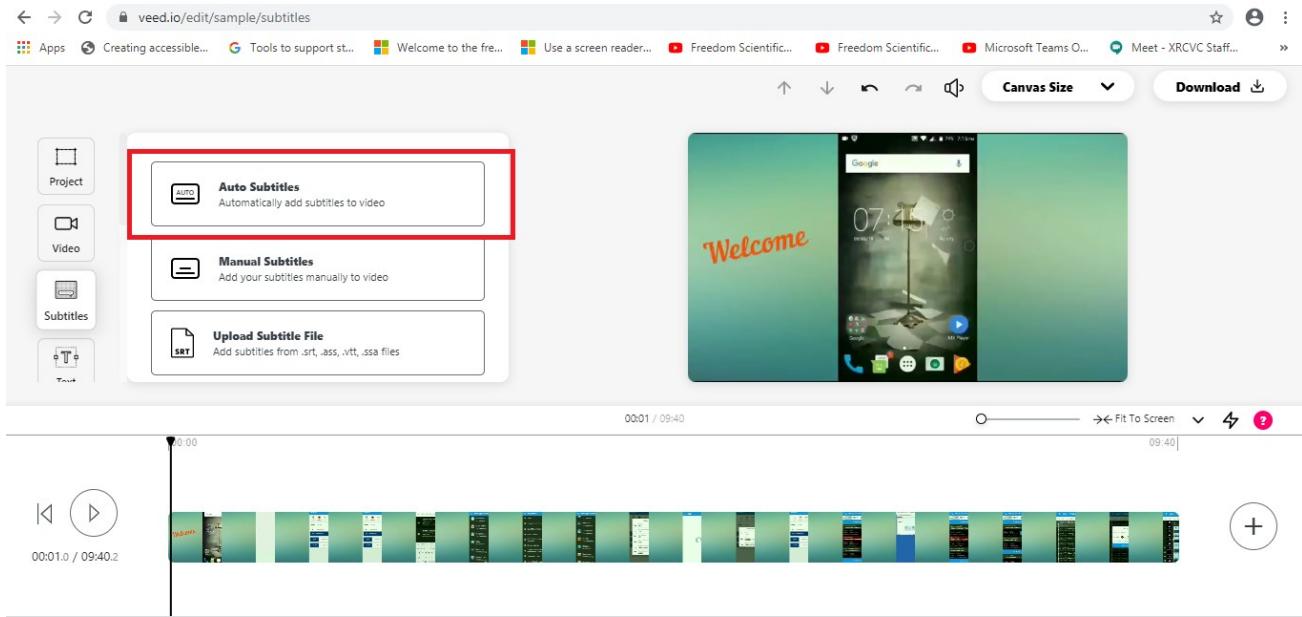


The screenshot shows the veed.io video editor interface after a video has been uploaded. The "Uploading Video" button is now grayed out. The duration is now 09:40.2. The preview area shows a smartphone screen with a "Welcome" message. The timeline at the bottom shows multiple video clips, with the first clip starting at 00:00 and ending at 09:40. The playback controls and zoom button are visible at the bottom.

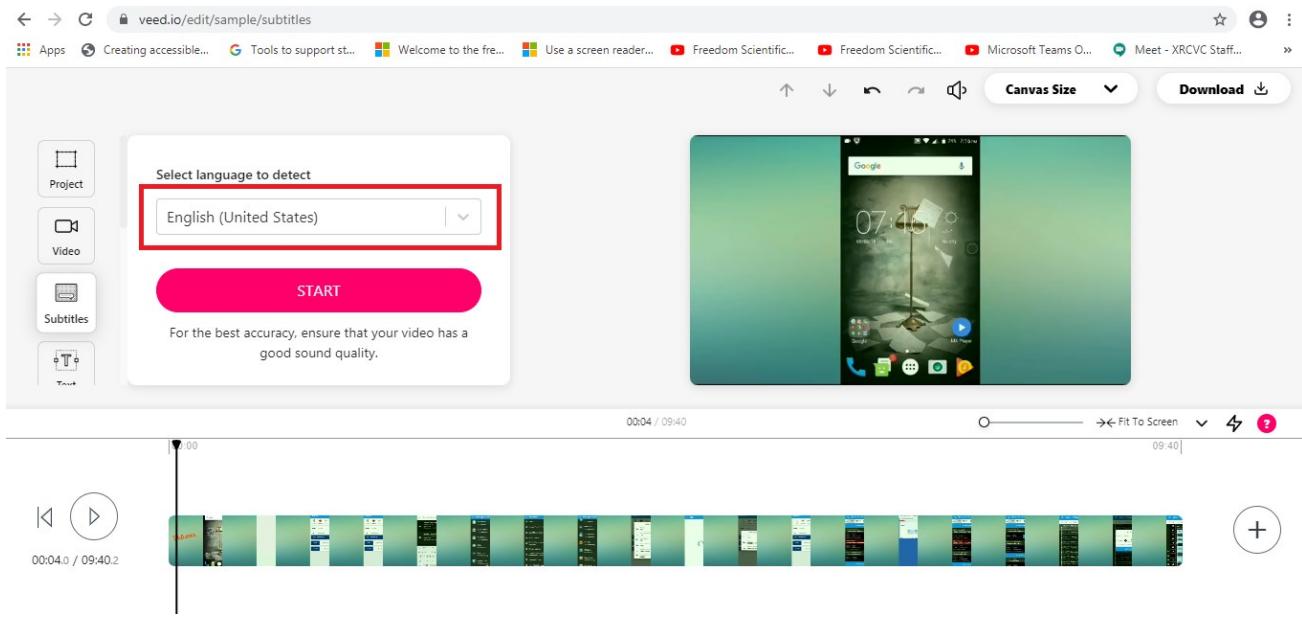
Step 5: After this click on the Subtitle button.



Step 6: It will show the options such as Auto Subtitle, Manual Subtitle or Upload subtitle file. Click on Auto Subtitle to generate the transcript

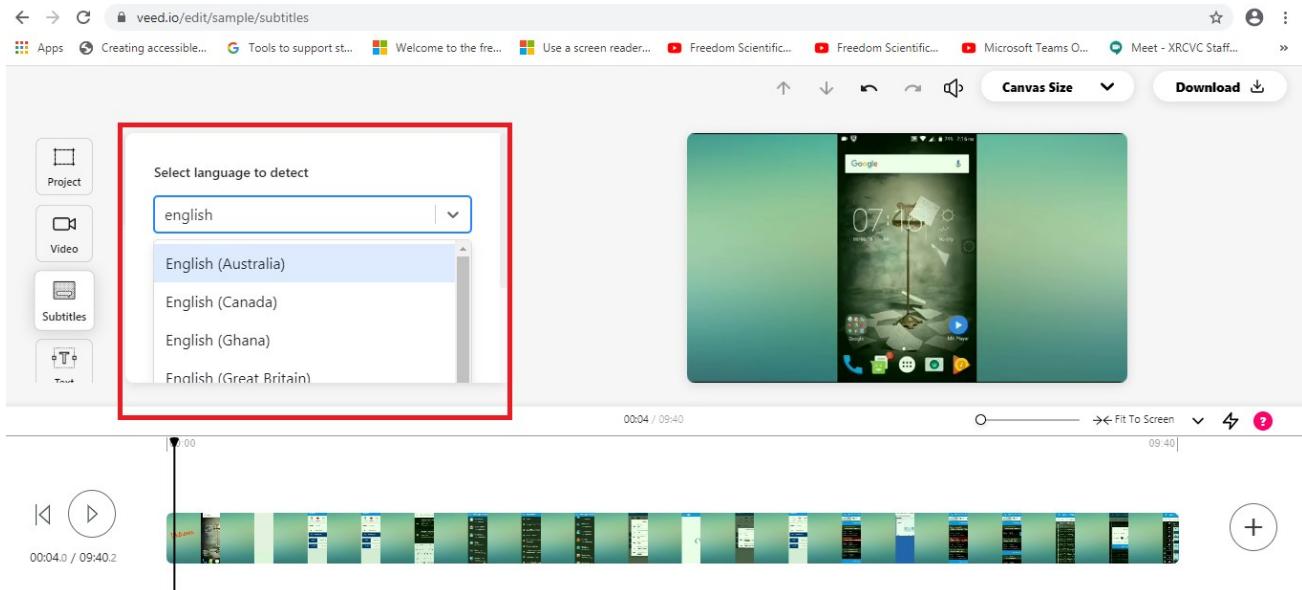


Step 7: It will prompt the language box. Choose the desired language from the combo box.

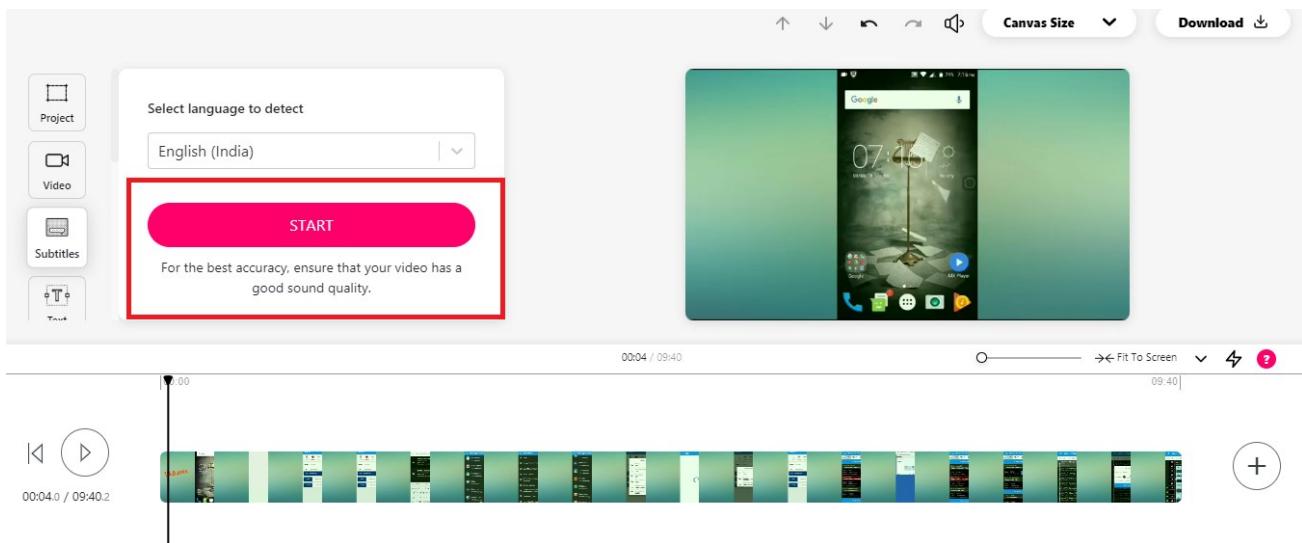


or

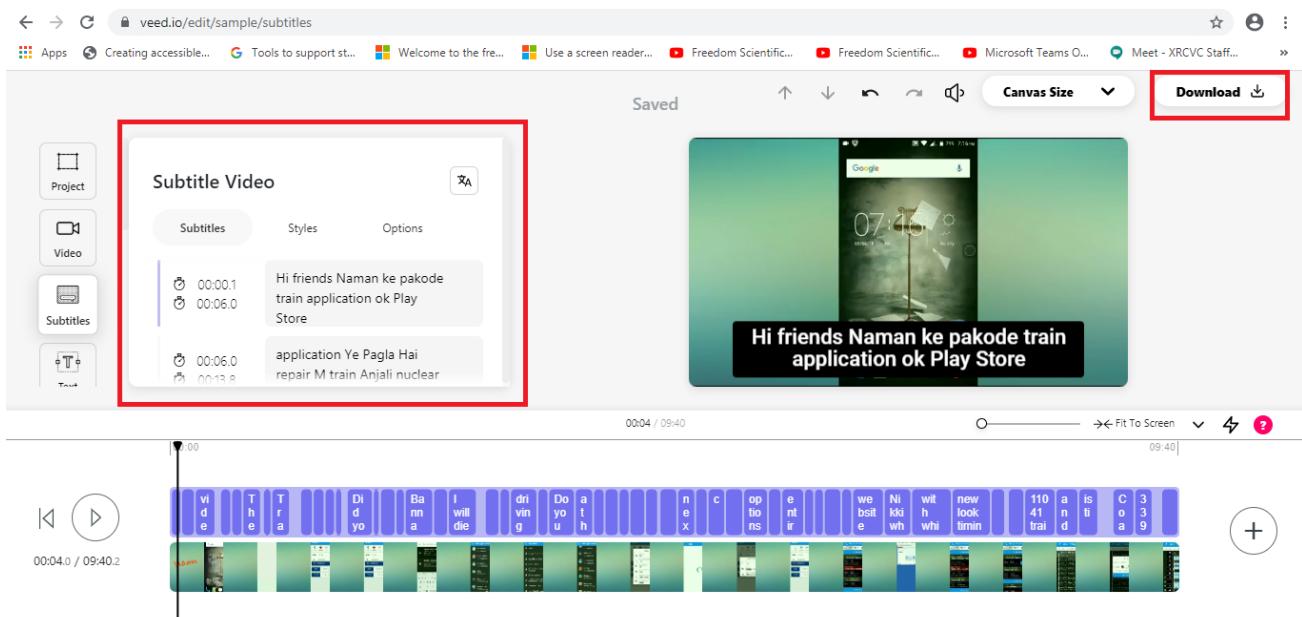
Step 7: Type inside the language box, it will show the language which you can select



Step 8: Click on the start button process to generate transcript or subtitle in video



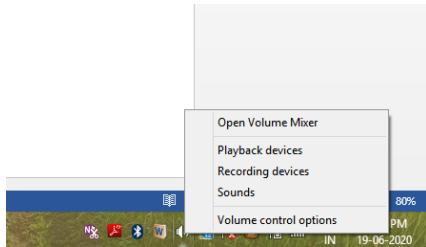
Step 9: Once it is done you can either check the transcript or subtitle box for editing. Otherwise click on download for downloading the video.



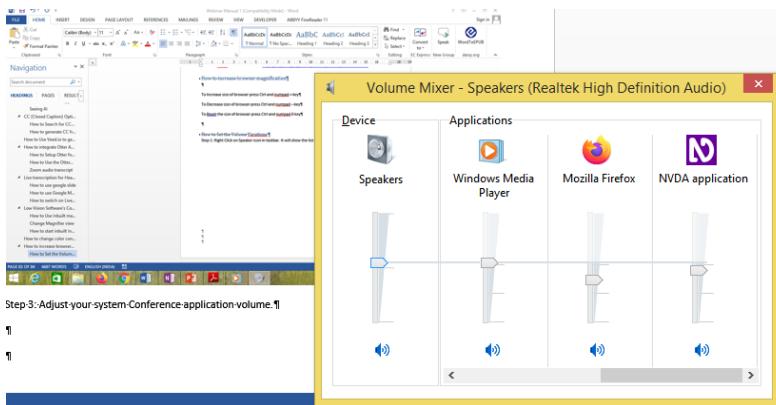
Annexure B Technical Steps for Using Accessibility Features of Online Platforms and Assistive Technologies

I. Volume variation of the screen reader & applications

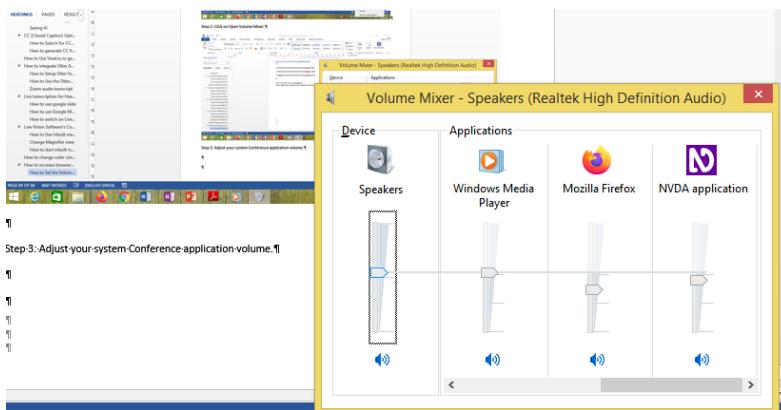
Step 1: Right Click on the Speaker icon in taskbar. It will show the list of options



Step 2: Click on the Open Volume Mixer. Press tab or shift tab to focus on the controller & change the volume.



Step 3: Adjust your system Conference application volume, depending on your preference.

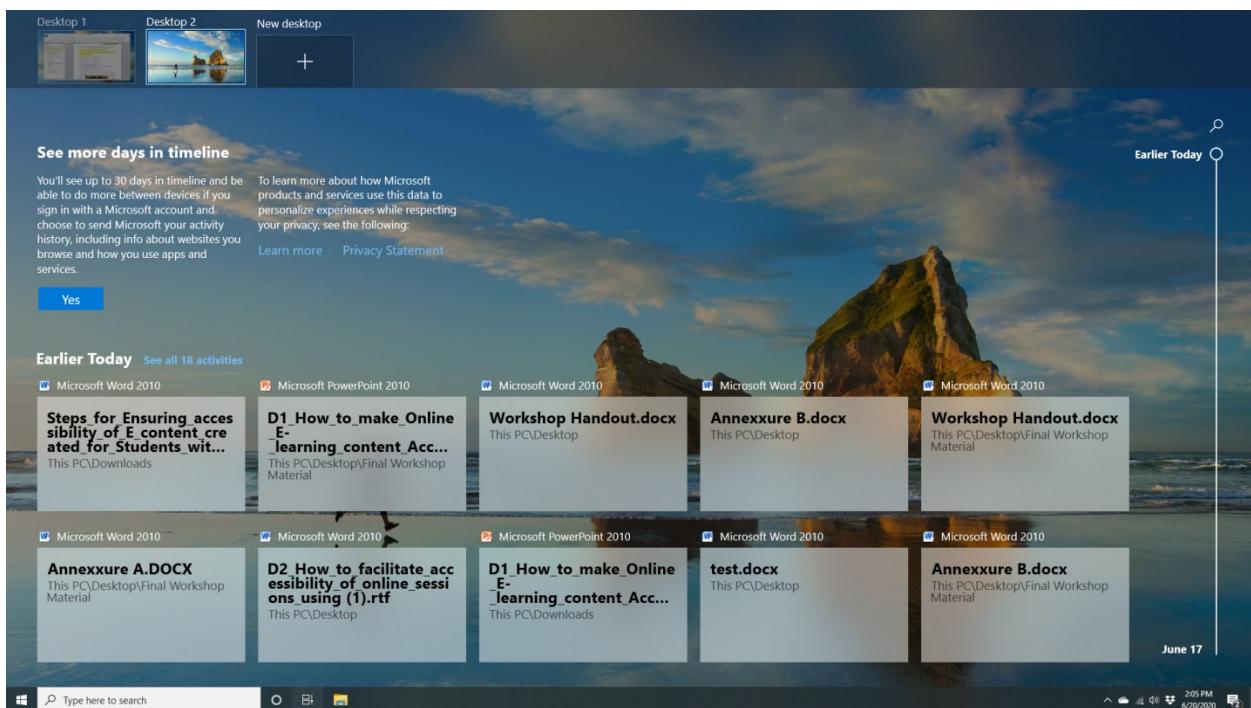


Step 4: Once NVDA is “ON” press Insert + Shift +D to activate audio ducking mode. It is the toggle key to switch on or off the audio ducking mode. Choose “No Audio Ducking”

II. Use of virtual desktops

Step 1: Press Windows Key+ Tab

Screen that will show is this



Step 2: Click on New Desktop and add a desktop: Button on Top Left Corner

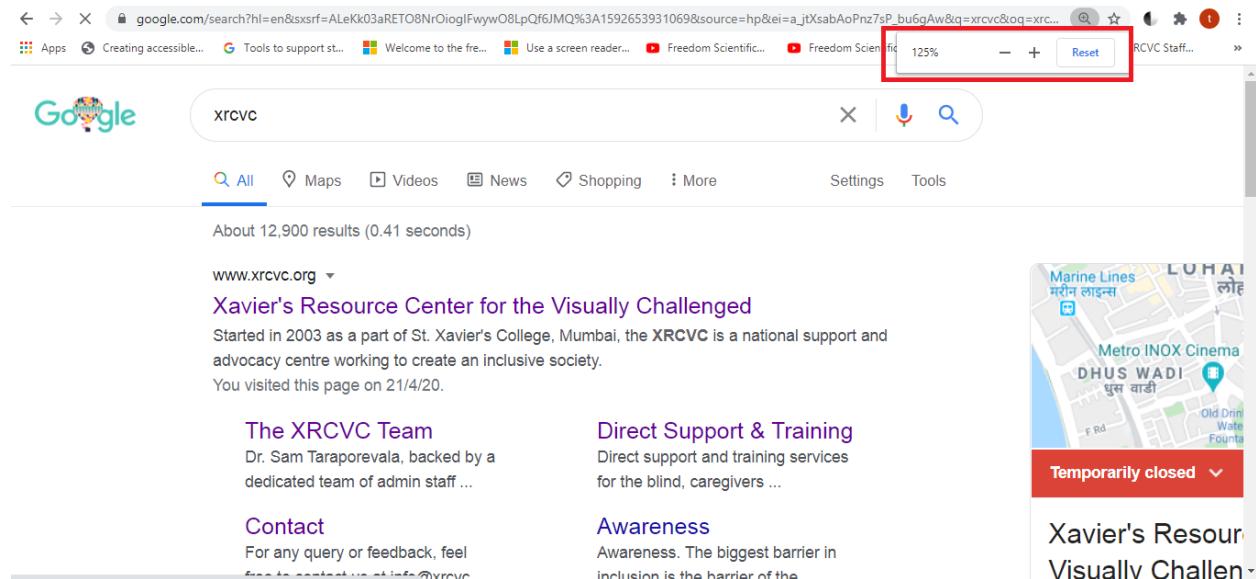
Now you can use Windows Tab to open the desktop screen and shift between desktop using arrow keys

III. Starting Browser Magnification

In the chrome Browser on right hand side you will find an option for Zoom.

- To Increase Magnification press Ctrl and numpad + key
- To Decrease Magnification press Ctrl and numpad – key
- To Reset the size of browser press Ctrl and numpad 0 key

You can also view the magnification browser Demo Video - https://www.youtube.com/watch?v=No_sg-EDlxE



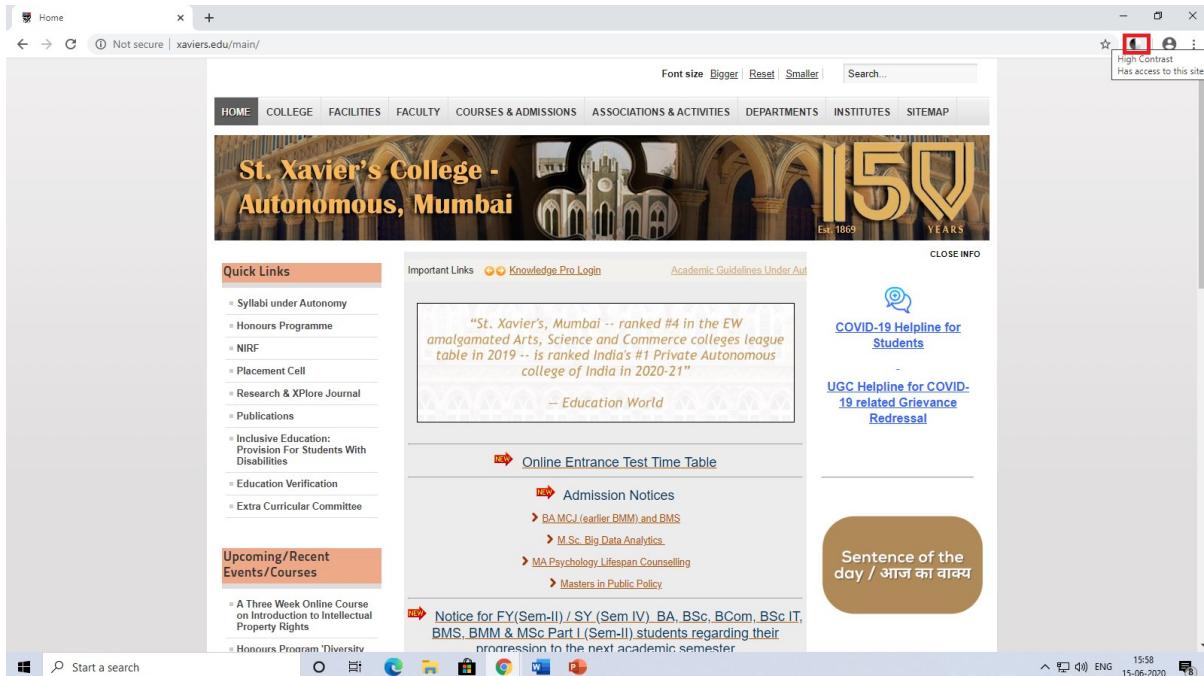
IV. Using Chrome extension for color contrast

Download the chrome extension for color contrast from the link

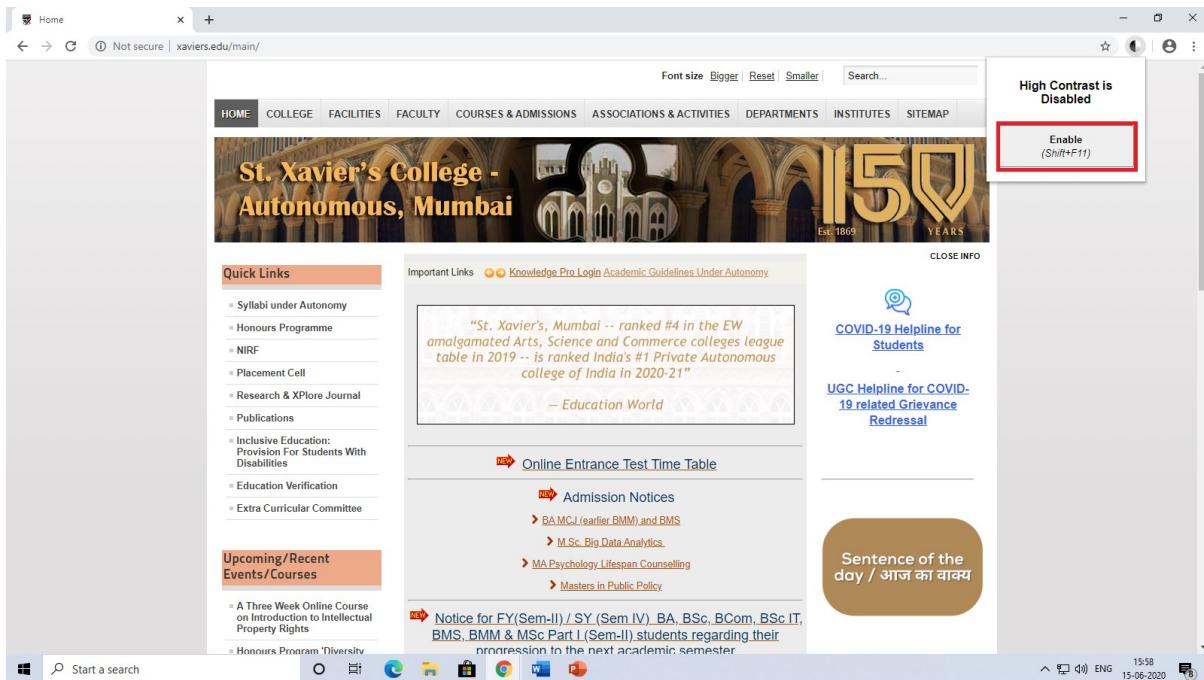
<https://chrome.google.com/webstore/detail/high-contrast/djcfdncoelnblldjhinnjlhdjlikmph?hl=en>

Install the extension. This will get added to your browser

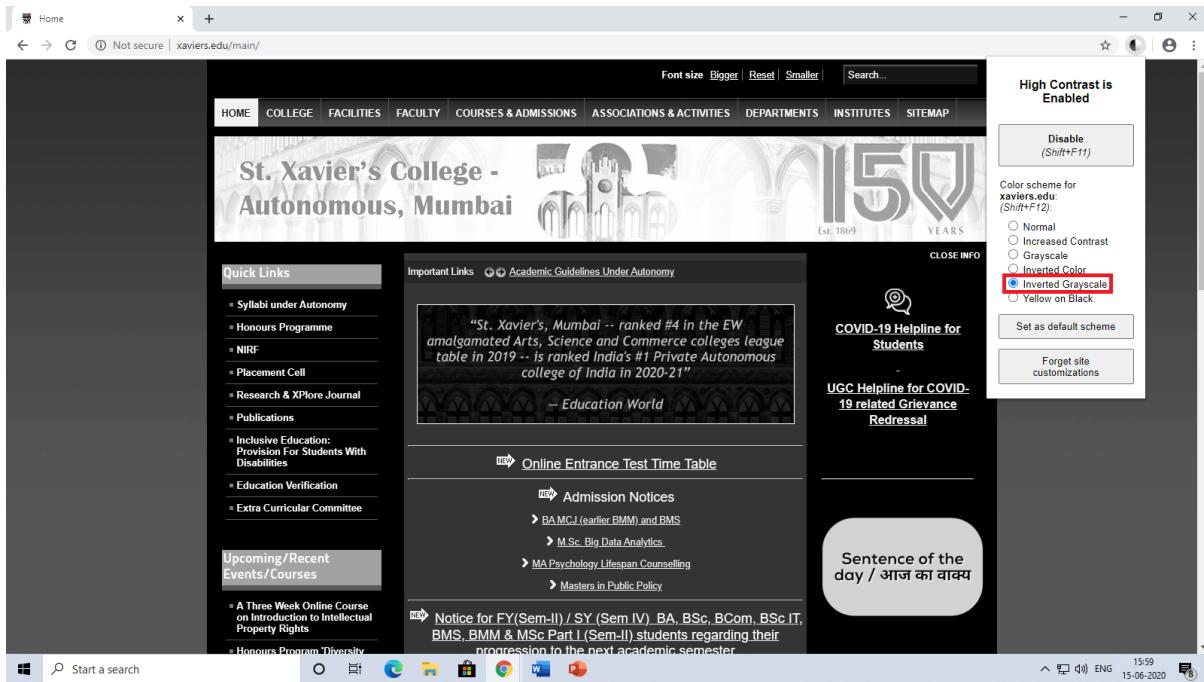
Step 1: After installing the extension you will see the icon on top right corner next to address bar



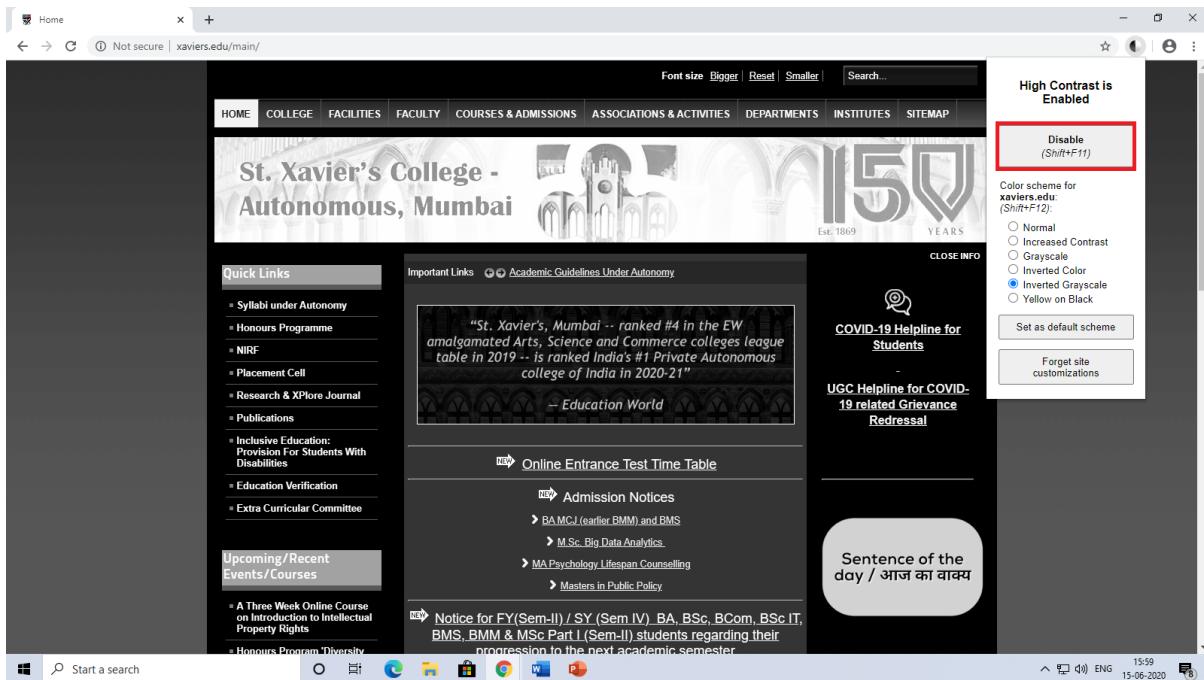
Step 2: To enable color contrast click on the icon, then click on Enable button or press shortcut key Shift + F11



Step 3: One can choose different color contrast options according to preference.



Step 4: To disable color contrast click on the icon, then click on Disable button or press shortcut key Shift + F11



NOTE:

- Link for color contrast manual: <https://support.google.com/chrome/answer/7040464?hl=en>
- High Contrast Chrome Browser (Video) - <https://www.youtube.com/watch?v=1fyYUZ3repA>

V. Use of windows inbuilt magnifier

Starting the Magnifier

To quickly turn on Magnifier, press the **Windows logo key+ Plus sign (+)**. To turn off Magnifier, press the **Windows logo key + Esc**.

If you prefer using a mouse, you can switch on the Magnifier by going to the **Start Menu > Settings > Ease of Access > Magnifier > Turn on Magnifier**.

Invert colors

Inverted colours reduce eye strain or make text more readable for some people.

- To invert screen colours while Magnifier is turned on, press **Ctrl + Alt + I**. Black color becomes white and vice versa, and other colors change to suit that.
- To return the colors to normal, press **Ctrl + Alt + I** again.

NOTE:

You can view the following videos to learn more

- Windows 10 Computer Invert Color / High Contrast Demo video link -
<https://www.youtube.com/watch?v=MU1fDBSps5g>
- Windows 8.1 Computer Invert Color / High Contrast Demo video link -
<https://www.youtube.com/watch?v=uZSXsv0Cp8I>
- Windows 7 Computer Invert Color / High Contrast Demo video link -
<https://www.youtube.com/watch?v=fR3x0uvYVIA>

Change Magnifier view

Use the following shortcuts to change between Magnifier views:

- To use the full screen view, press **Ctrl + Alt + F**.
- To use the docked view, press **Ctrl + Alt + D**.
- To use the lens view, press **Ctrl + Alt + L**.
- To cycle between the views, press **Ctrl + Alt + M**. You can use this to quickly compare the views and see which one works best for you in each situation.

NOTE:

You can view the following videos to learn more

- Link for in detail about magnifier: <https://support.microsoft.com/en-in/help/11542/windows-use-magnifier-to-make-things-easier-to-see>
- Windows 7 Magnifier Demo video link - <https://www.youtube.com/watch?v=E9C5gZfmkvc>
- Windows 8.1 Magnifier Demo video link - <https://www.youtube.com/watch?v=dJzdH7cefGI>
- Windows 10 Magnifier Demo video link - <https://www.youtube.com/watch?v=jbHHw5faJxQ>

VI. Use of OTTER with Zoom for Closed Captioning (CC)

How to Setup Otter for Zoom

- Zoom administrator account - Pre-approve Otter in Zoom Marketplace and Allow live streaming in Zoom
- Zoom meeting hosts -. Allow live streaming in Zoom & Connect Otter to Zoom.

NOTE:

- Your Zoom administrator needs to do only do the setting once for the entire organisation.
- Every meeting host needs to Allow in zoom.

Step 1: Sign in to Zoom Marketplace as the administrator, Search for Otter.ai Live Notes for Zoom then Change Pre-approve to Enabled.

The screenshot shows the Zoom App Marketplace. At the top, there is a search bar with the placeholder "Search a published app", a "Develop" dropdown menu, and a "Manage" button. Below the search bar, the URL "App Marketplace > Otter.ai Live Notes for Zoom" is visible. The main content area displays the "Otter.ai Live Notes for Zoom" app page. The app logo features the word "Otter" in blue with three vertical bars of increasing height to its right. The app is listed as "By Otter.ai" and "Works with: Zoom Meetings". Below the logo, there are three tabs: "App info" (which is selected), "Manage", and "Who Can Install". On the right side of the page, there is a "Visit site to install" button and a "Pre-approve" toggle switch, which is highlighted with a red border. A descriptive text box below the switch states: "Users on your account can install Otter.ai Live Video Meeting Notes for Zoom. Disable this setting to disallow users from installing Otter.ai Live Video Meeting Notes for Zoom." To the left of the main content, there is a sidebar with links to "App Documentation", "Privacy Policy", "Terms of Use", and "Support", each preceded by a right-pointing arrow. Under "Categories", the "Transcriptions" category is selected. At the bottom of the page, there is a "Show more" link.

Step 2: Sign in to Zoom as an administrator, Under Admin, click Account Management, and then click Account Settings. In the Meeting tab, configure the following settings: Allow live streaming meetings:

Enabled, Custom Live Streaming Service: Enabled.

Schedule Meeting
In Meeting (Basic)
[In Meeting \(Advanced\)](#)
Email Notification
Admin Options

Allow live streaming meetings

- Facebook
- Workplace by Facebook
- YouTube
- Custom Live Streaming Service

Provide specific instructions that will enable meeting hosts in your account to configure live streaming

Managed by otter.ai

Step 3: Sign in to Zoom as a meeting host and Click Settings. In the Meeting tab, configure the following settings: Allow live streaming meetings: Enabled, Custom Live Streaming Service: Enabled (it's not necessary to insert or edit the text box)

Schedule Meeting
In Meeting (Basic)
[In Meeting \(Advanced\)](#)
Email Notification
Admin Options

Allow live streaming meetings

- Facebook
- Workplace by Facebook
- YouTube
- Custom Live Streaming Service

Provide specific instructions that will enable meeting hosts in your account to configure live streaming

Managed by otter.ai

Step 4: Sign in to Otter.ai, click the profile icon at the top right, and then click Account Settings. It will show general, app & other tabs. Click the Apps tab, find Zoom under Connect Apps, and then click Connect.

Account Settings

General Plan Apps Notifications

Connect apps
Extend Otter to other apps to improve collaboration and save you time.

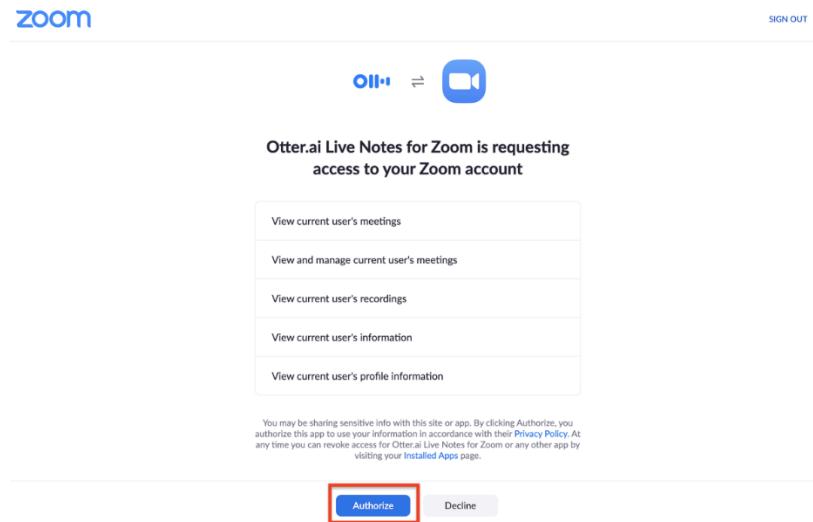
Dropbox Sync video and audio files into Otter for transcription, and save the transcripts/captions back to your Dropbox. Premium feature **Connect**

zoom Live transcription and cloud recordings auto-sync for Zoom Pro, Business, and Enterprise. [Please follow these instructions for one-time setup within Zoom.](#) **Connect**

NOTE:

For existing Otter users, If you had set up Otter to sync Zoom cloud recordings, you will need to Disconnect and Connect again to activate Otter Live Notes.

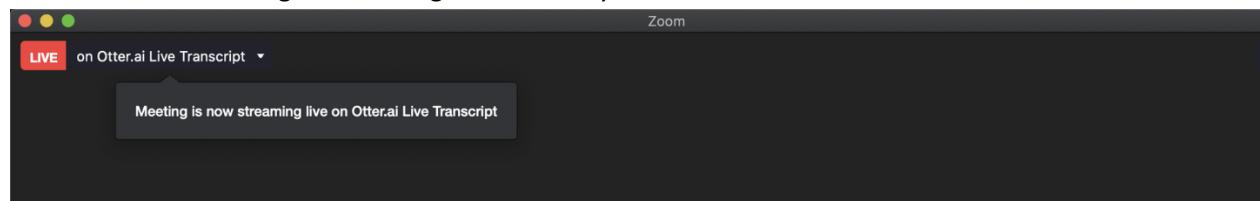
Step 5: If you are not already signed into Zoom, you would be prompted to sign in. Click Authorize to connect Otter to Zoom.



How to Use the Otter Live notes with Zoom

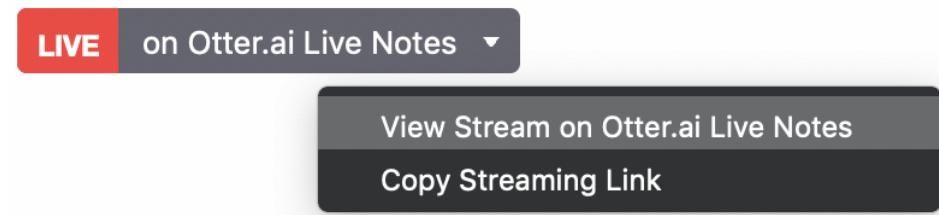
Step 1: After Sign in in zoom & Start a meeting with the Zoom account that is connected to Otter for Teams.

Step 2: A red LIVE indicator will appear at the top left of the Zoom window, indicating that Otter has started live transcribing the meeting automatically.



Step 3: After participants join the meeting they can open a live interactive transcript directly from Zoom to follow along and scroll back to read at their own pace.

Click the red LIVE indicator dropdown button and in the list click View Stream on Otter.ai Live Transcript.



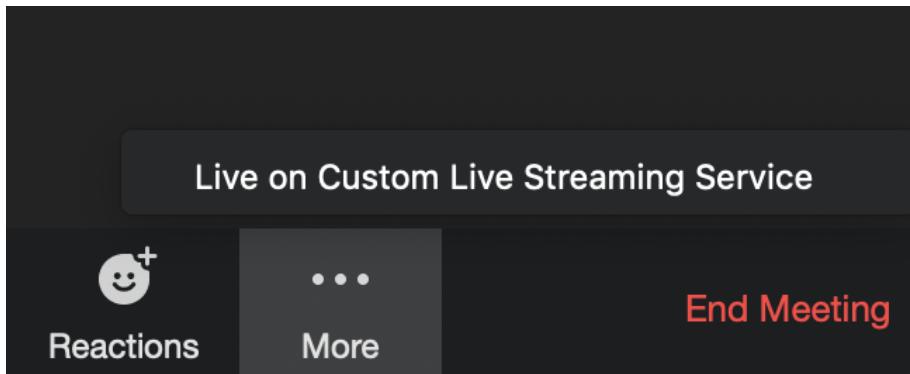
Step 4: The live transcript will open in a browser window.

The screenshot shows a live transcript from Otter.ai. At the top, there is a logo and navigation links for 'Log in' and 'Sign up'. The timestamp is 18:05. The main content area displays a meeting note titled 'Managing the Tensions & Tradeoffs Between User Experience & SEO'. The note discusses various factors like 'Links', 'Content', 'User-Facing Data', and 'Technical Issues', and how they relate to 'Ranking' and 'Search Engine'. It also mentions 'Many of these are attached by the website/page's URL' and 'Nearly everything you might do on a site affects its ranking in SEO with a small benefit or breaking exceptions'. There are three examples labeled 'Exception #1: Page Composition', 'Exception #2: Internal Linking and Structure', and 'Exception #3: Requests On Pages'. The note concludes with 'Description: We're Considering Rankable Text Content in the User-Facing World' and 'Summary: We're Considering Rankable Text Content in the User-Facing World'. The timestamp at the bottom is 18:34.

Step 6: To switch off transcribing for certain meetings, you can click the red LIVE indicator in the dropdown and in the list click Stop Live Stream.

The screenshot shows the Otter.ai interface with a 'LIVE' button highlighted in red. A dropdown menu is open, showing three options: 'Stop Live Stream', 'View Stream on Otter.ai Live Transcript', and 'Copy Streaming Link'. The background is dark blue.

Step 7: In case you need to restart the live transcription, in meeting window of zoom click More button which is located at right corner of floating meeting controls and then click Live on Custom Live

**NOTE:**

You can learn more through watching these videos:

- Otter Demo Video Link - <https://www.youtube.com/watch?v=mkF1cE7ARTE>
- Otter Setting & configuration Link - <https://blog.otter.ai/zoom/>

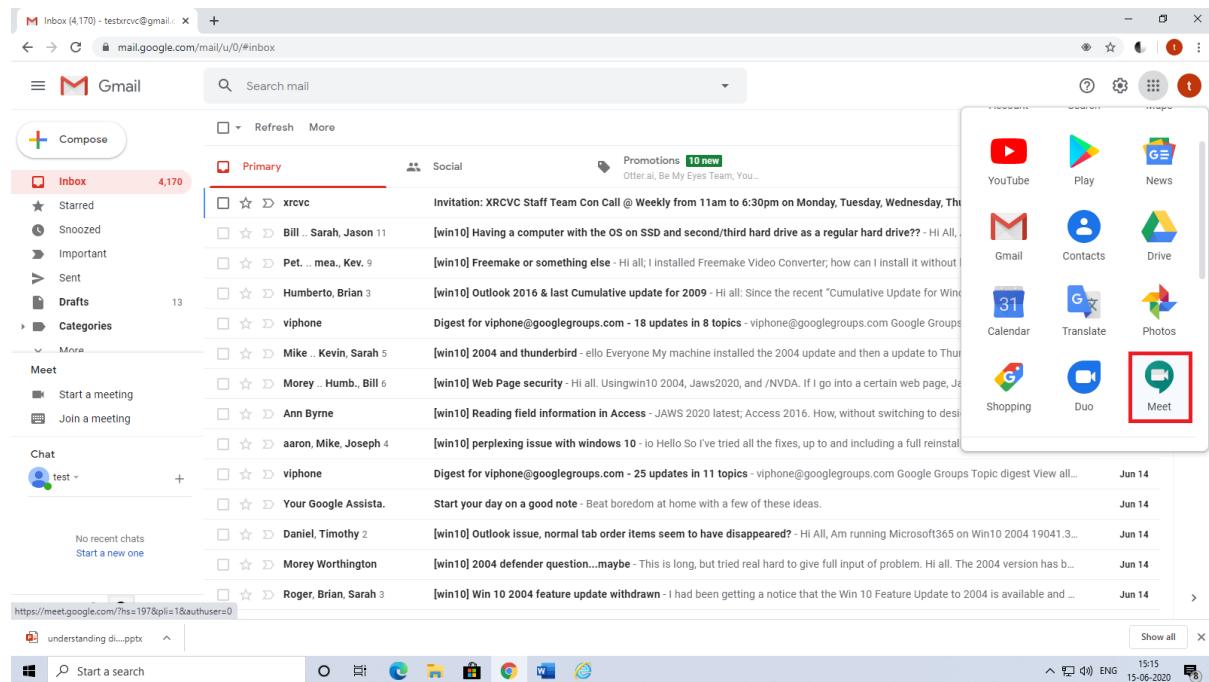
VII. Use of Google Meet for Closed Captioning (CC)

Step 1: Sign in to Gmail account or visit <https://meet.google.com/>

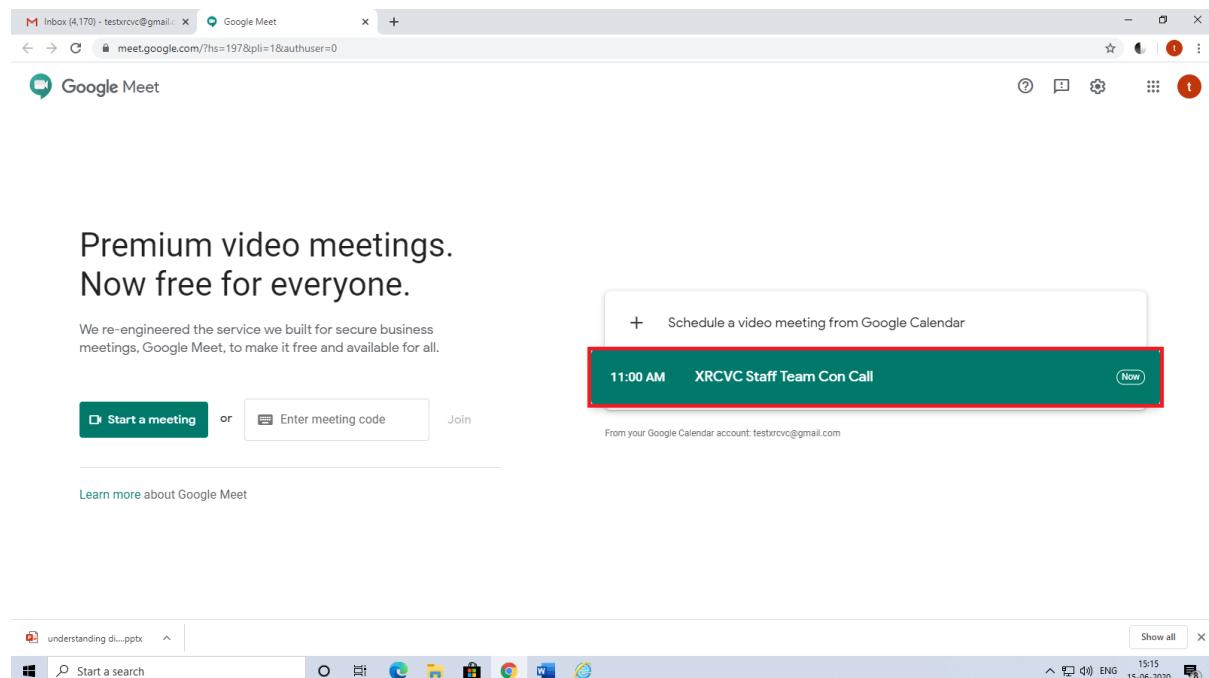
Step 2: Click to Google apps button

The screenshot shows a Gmail inbox with 4,170 messages. The 'Google apps' button in the top right corner is highlighted with a red box. The inbox lists various emails from contacts like xrovc, Bill .. Sarah, Jason 11, Pet. ... mea., Kev. 9, Humberto, Brian 3, viphone, Mike .. Kevin, Sarah 5, Morey .. Humb., Bill 6, Ann Byrne, aaron, Mike, Joseph 4, viphone, and Roger, Brian, Sarah 3. The messages are timestamped and show subject lines related to Windows 10 updates and Outlook issues.

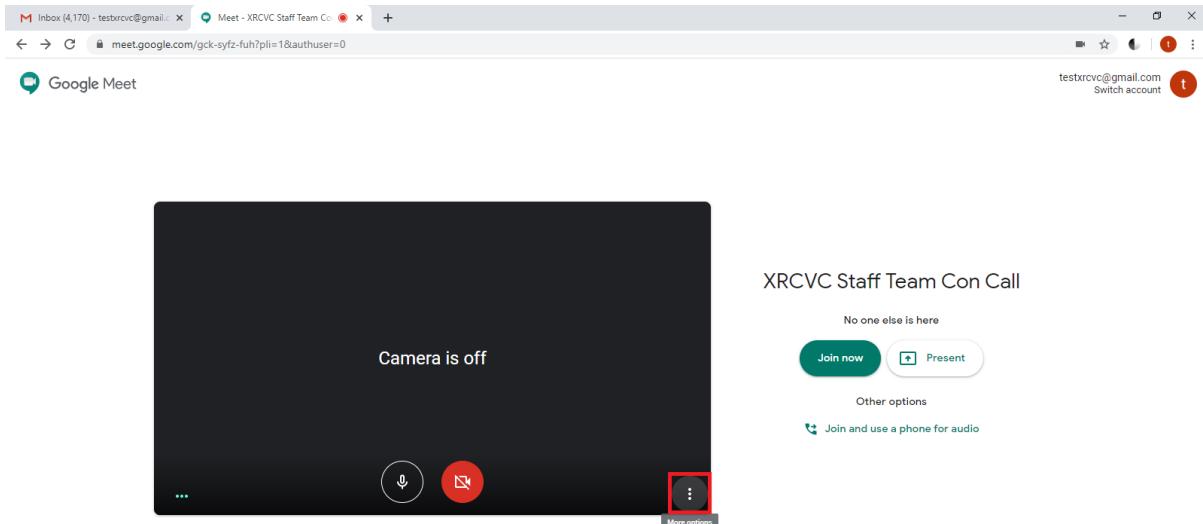
Step 3: It will open the list of application. So, choose Meet app and click on it



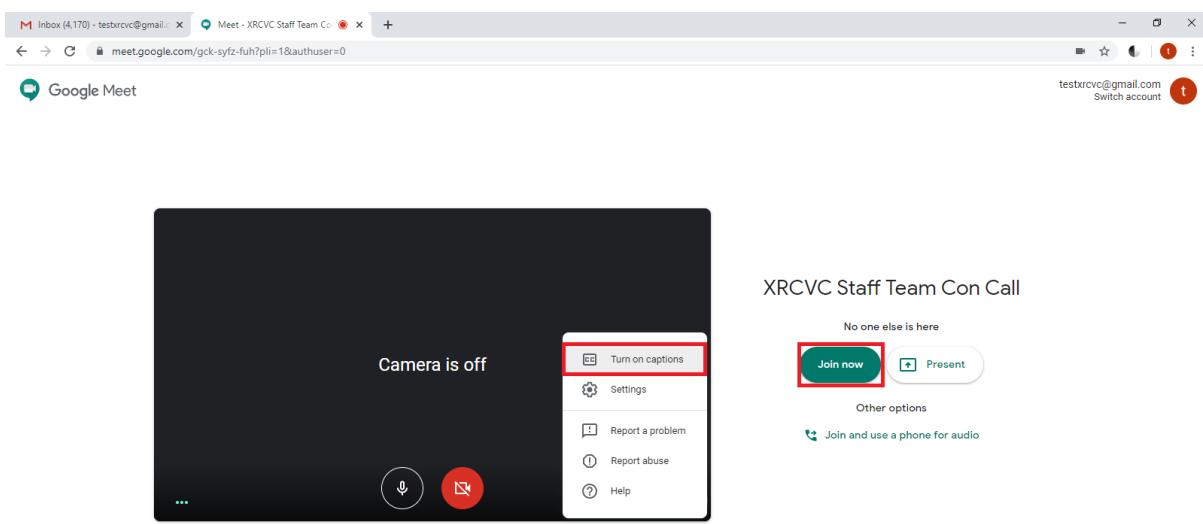
Step 4: Meet will open in new tab in the same window. If meeting is schedule then it will show the meeting so click on it



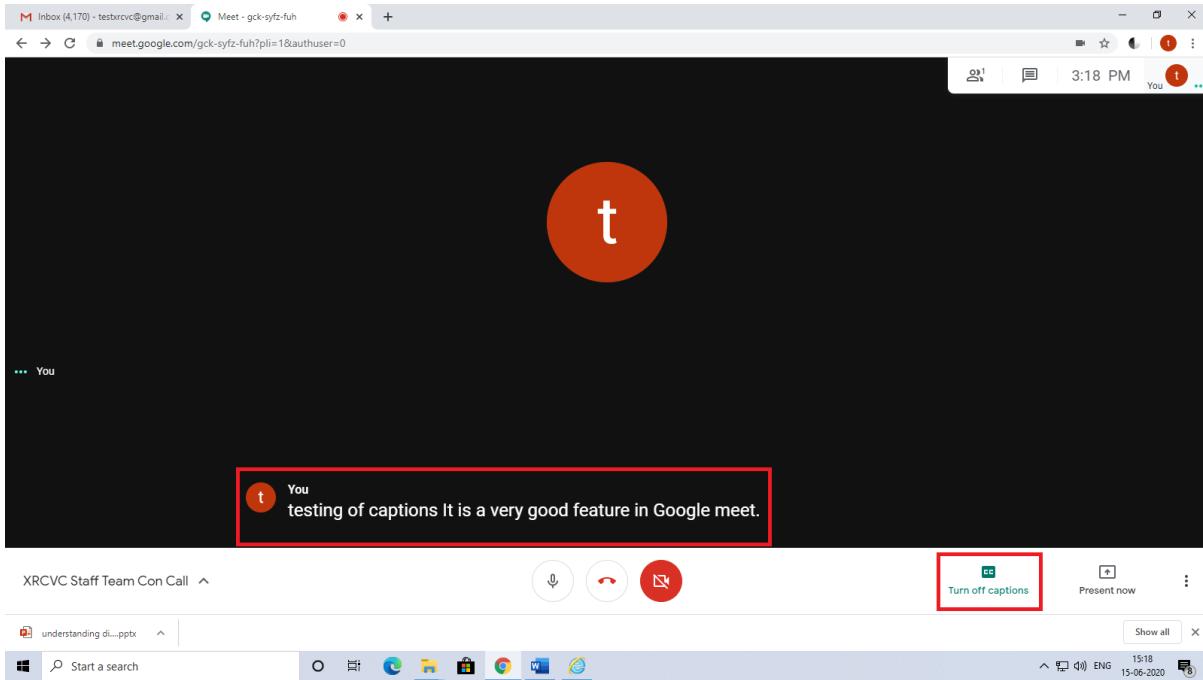
Step 5: You can switch on/off your microphone or video. To turn on caption click on More Options button



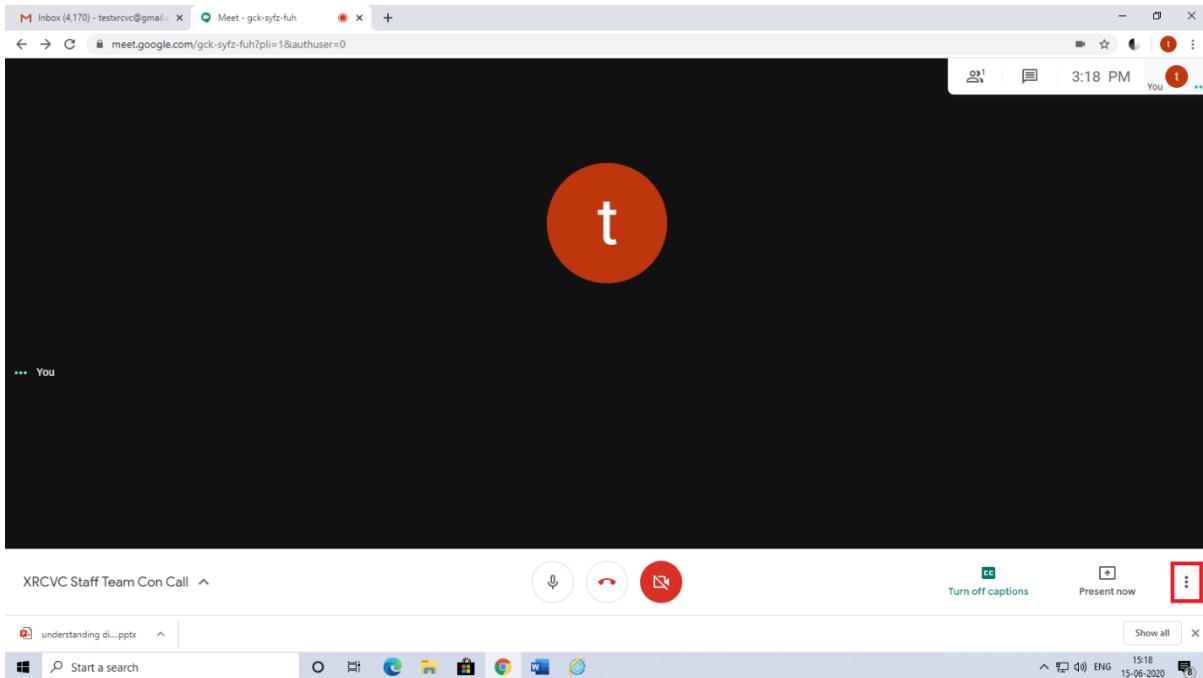
Step 6: After clicking on more options button, click on Turn on captions button, then click on Join now button or ask to join



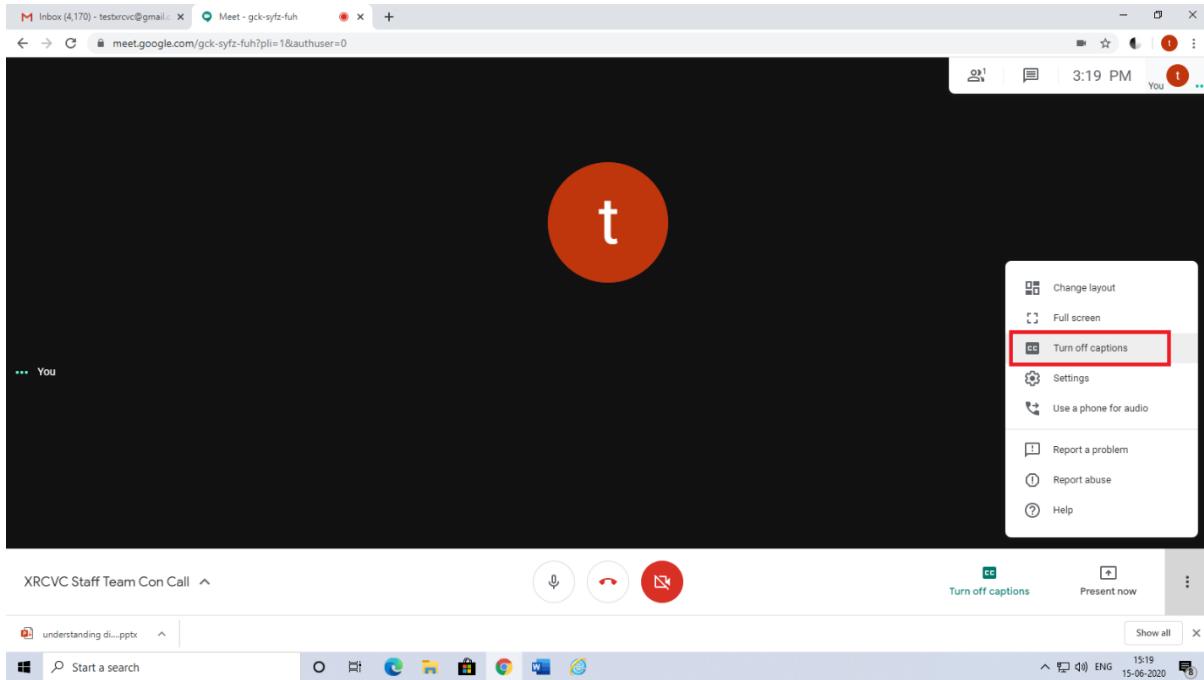
Step 7: Captions will be visible on the screen as anyone speaks. One can switch caption on/off after joining the meeting. In the lower section of the screen there is option Turn on/off captions



Step 8: One can turn on/off captions from more options button



Step 9: After clicking on more options button, click on Turn on/off captions button



NOTE:

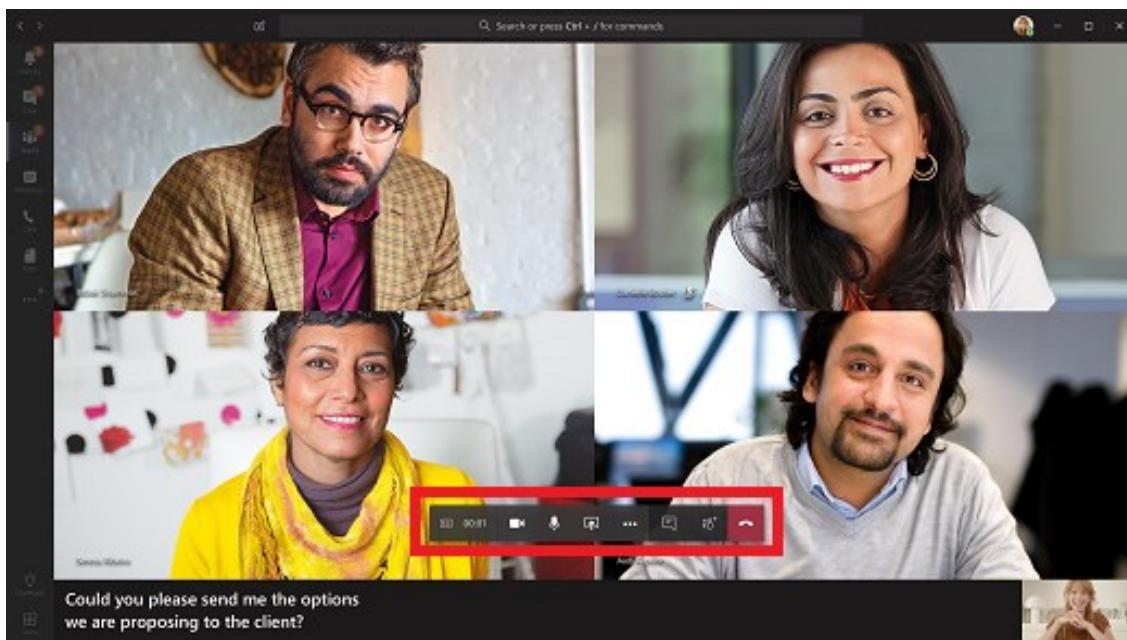
You can Learn More about Google Meets at:

- Google Meet user guide Link - <https://support.google.com/meet/?hl=en#topic=7306097>
- Google Meet Videos - <https://teachercenter.withgoogle.com/first-day-trainings/welcome-to-google-hangouts-meet>

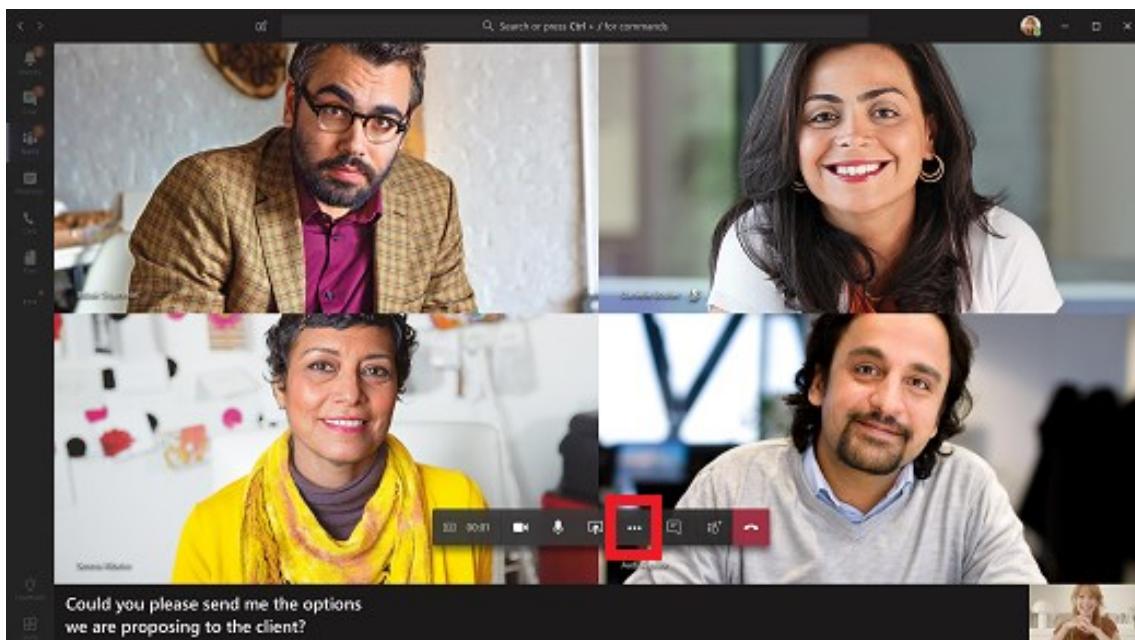
VIII. Use of Microsoft Team for Closed Captioning (CC)

Step 1: Login or Join the meeting

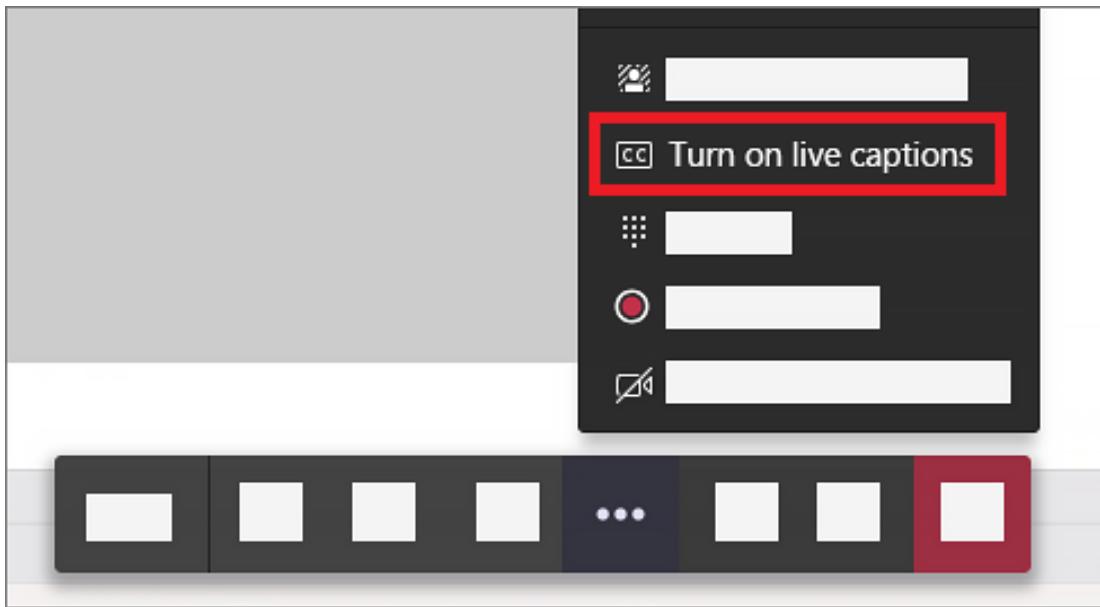
Step 2: After joining the meeting it will show meeting control panel on screen



Step 3: Click on more options button from the meeting control panel



Step 4: Click on Turn on live captions button. Similarly you can turn off live captions



NOTE:

You can learn more about Microsoft Teams at:

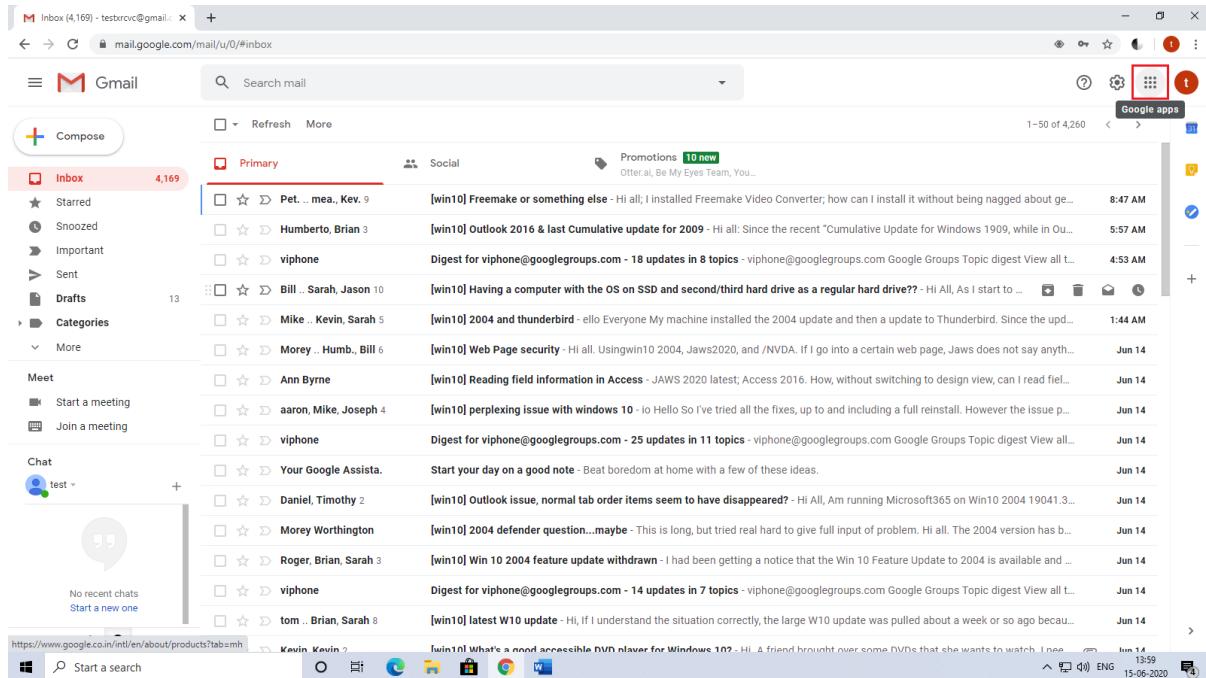
- Link: <https://support.microsoft.com/en-us/office/use-live-captions-in-a-teams-meeting-4be2d304-f675-4b57-8347-cbd000a21260#ID0EABAAA=Desktop>

IX. Live CC (Closed Captions) in Presentations

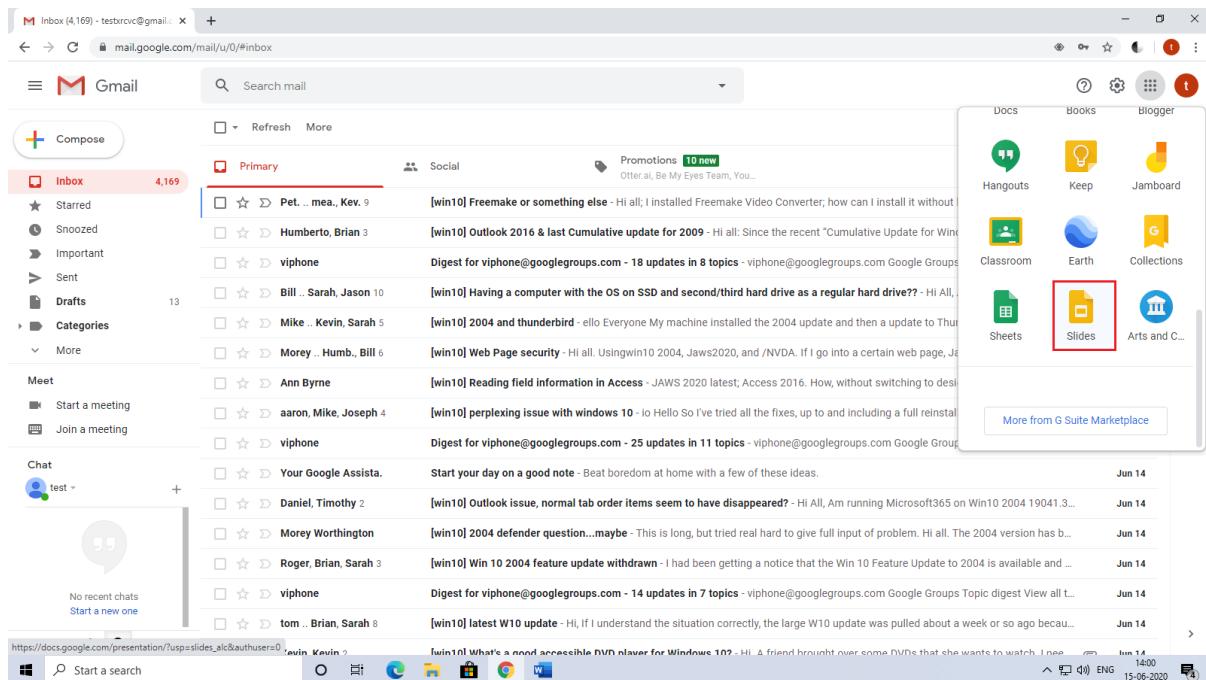
Google Slides: Switch on the CC

Step 1: Login to your Gmail account

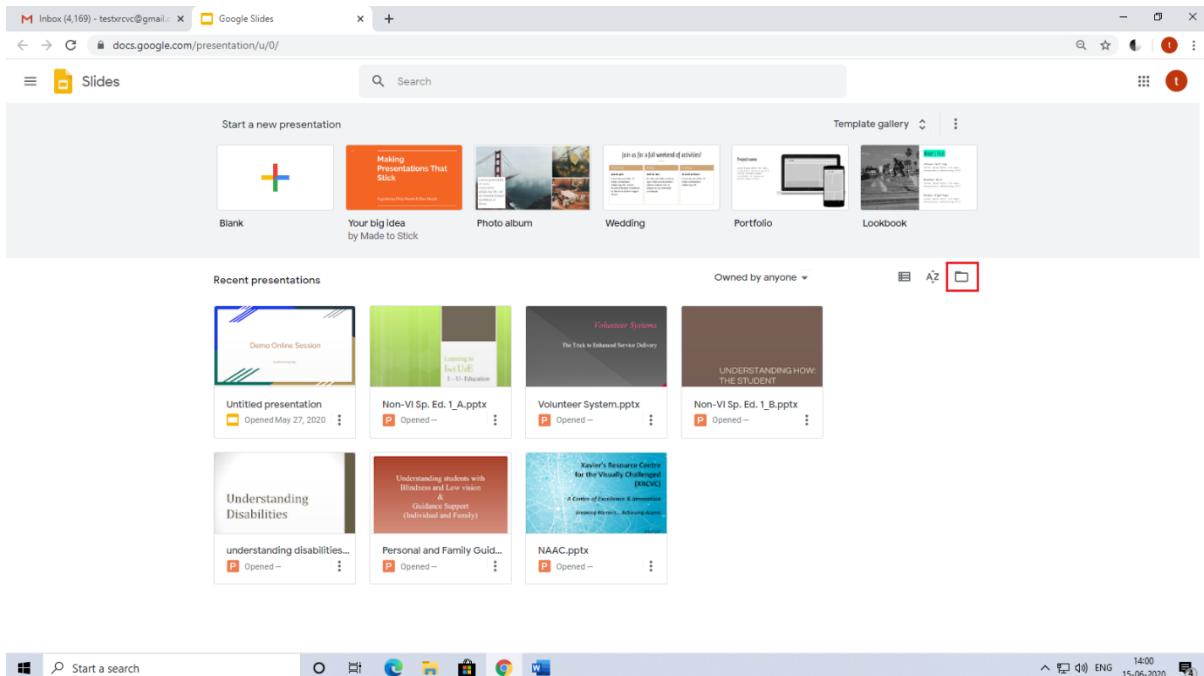
Step 2: Click to Google apps button



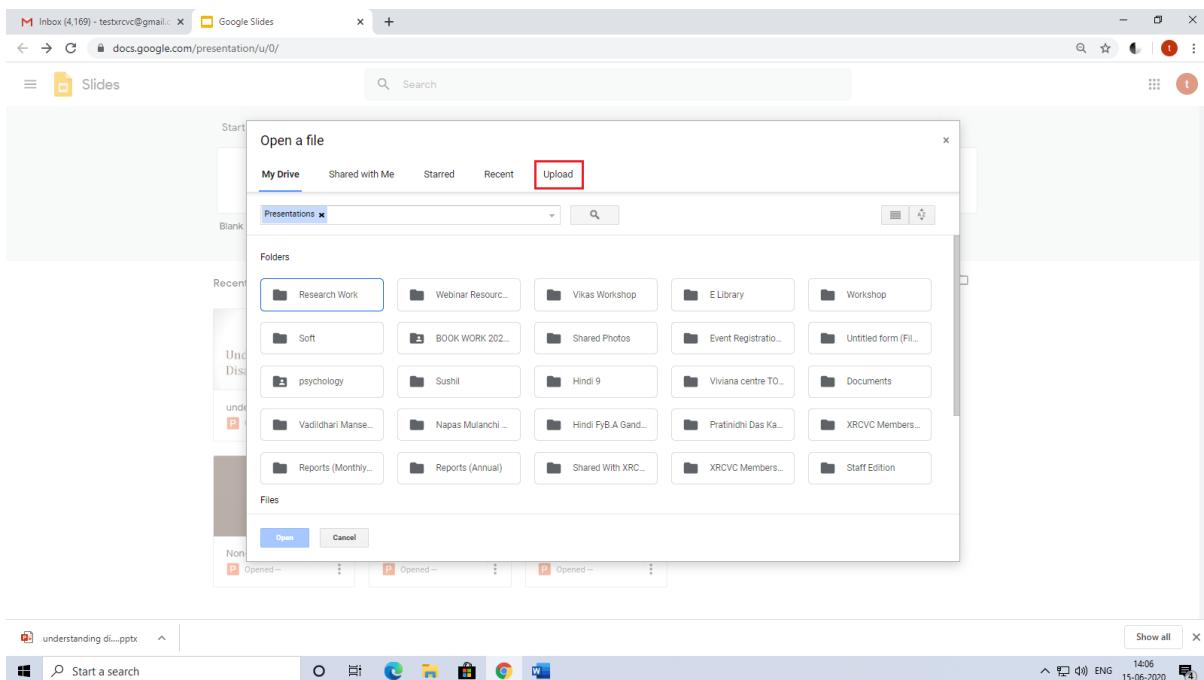
Step 3: It will open the list of application. So, scroll down and choose Slides app



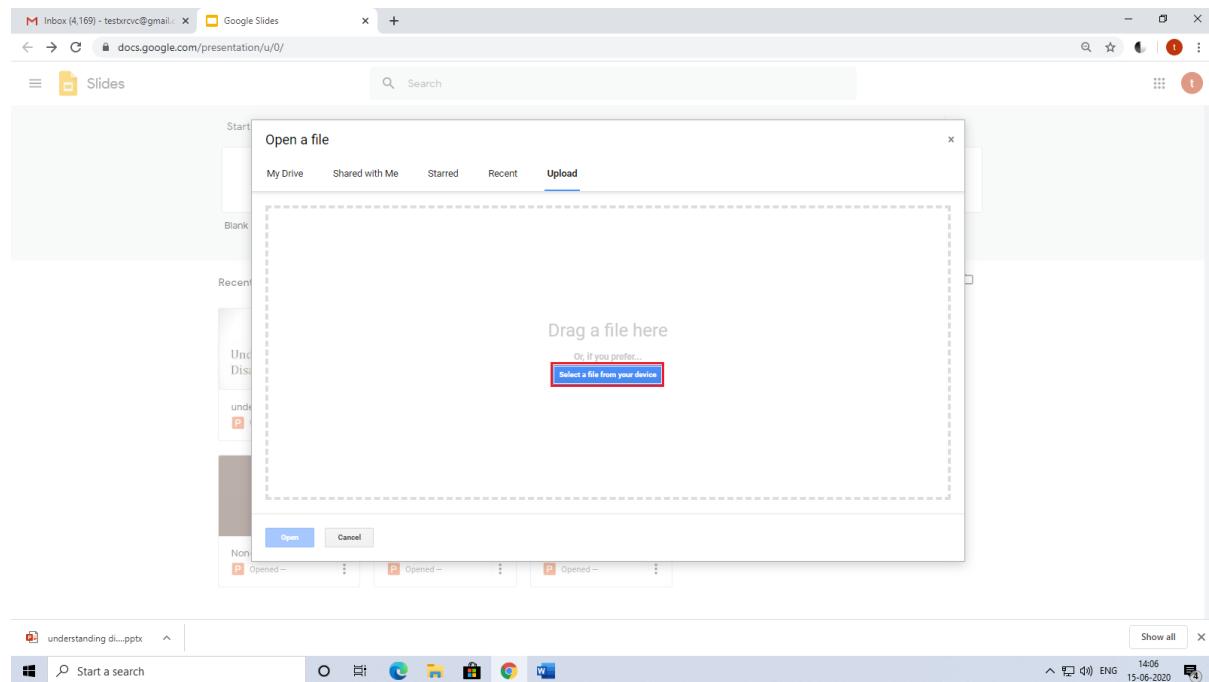
Step 4: Slides will open in new tab in same window. If PPT is not showing then load the PPT by clicking on Open File



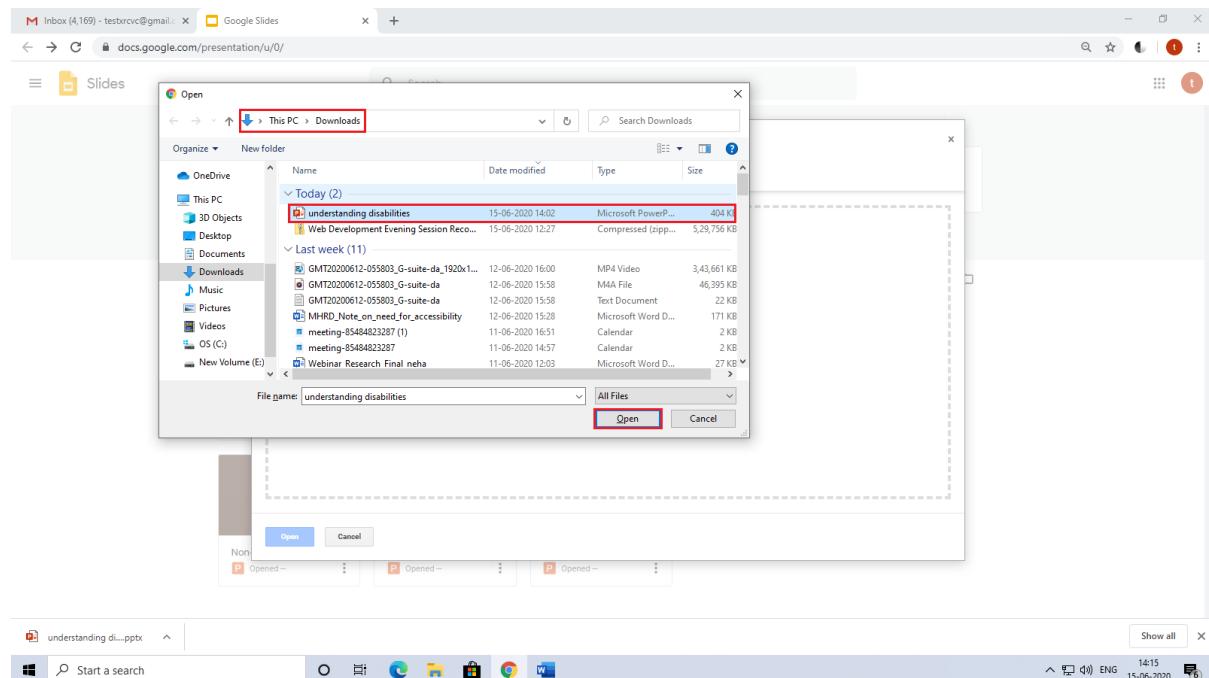
Step 5: It will open the open a file dialog



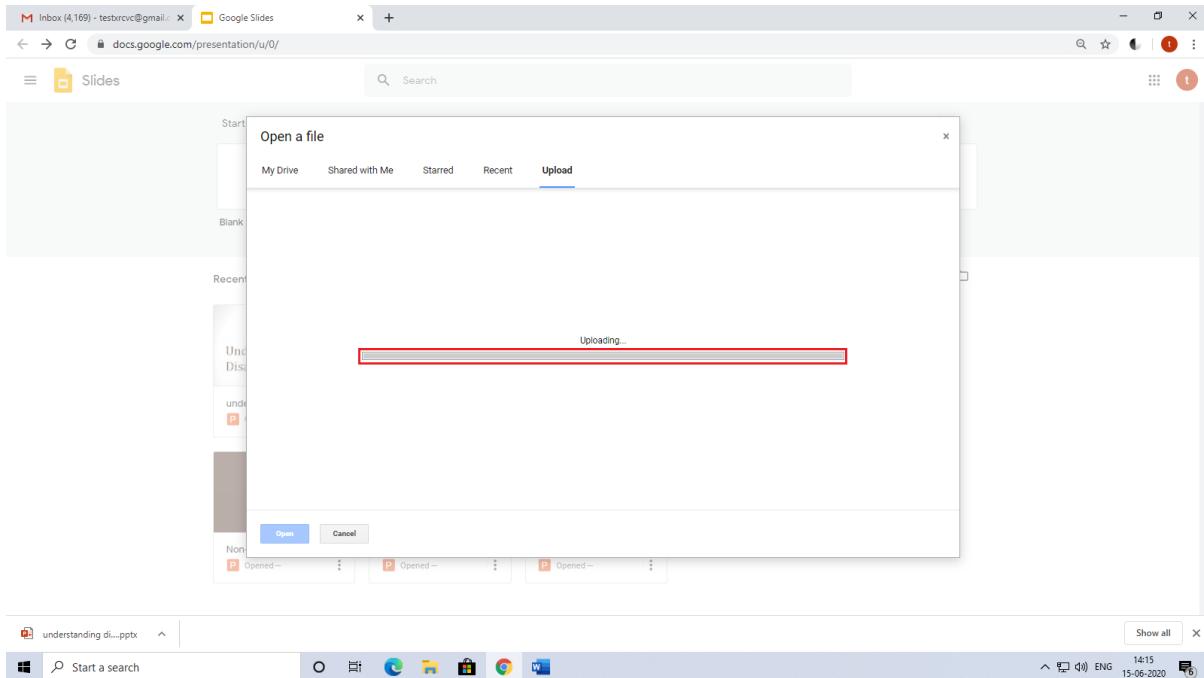
Step 6: Click on Upload tab, then click on select a file from your device button



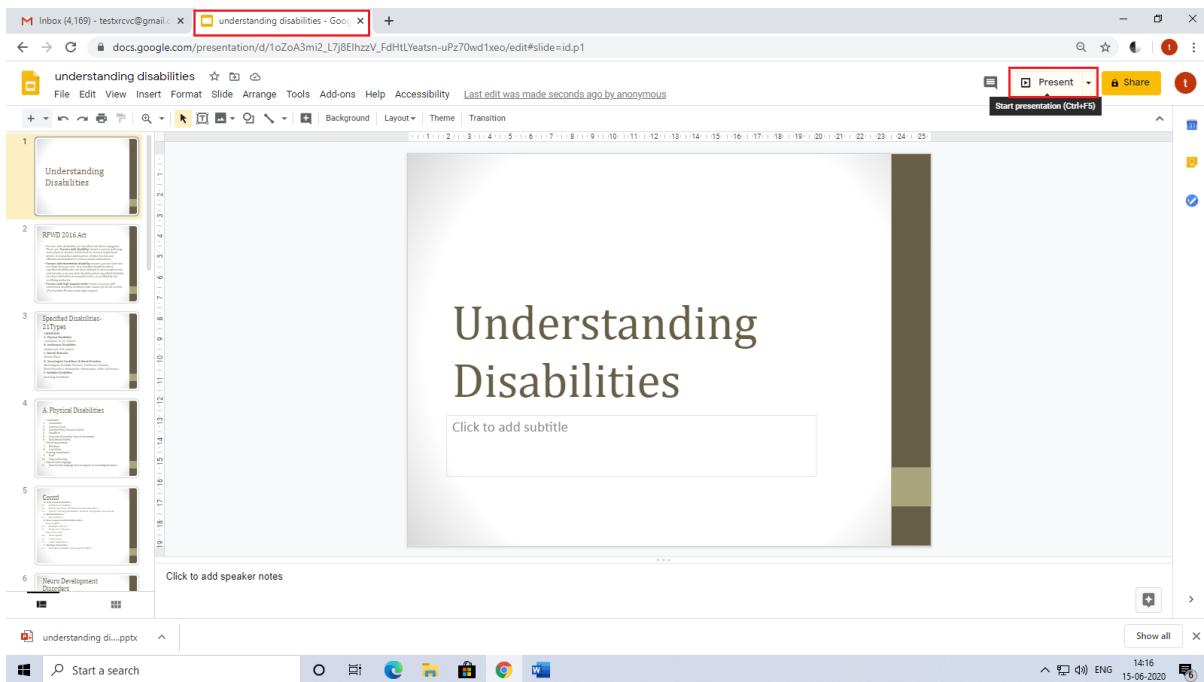
Step 7: It will open another dialog where you will have to choose your PPT and click on open button



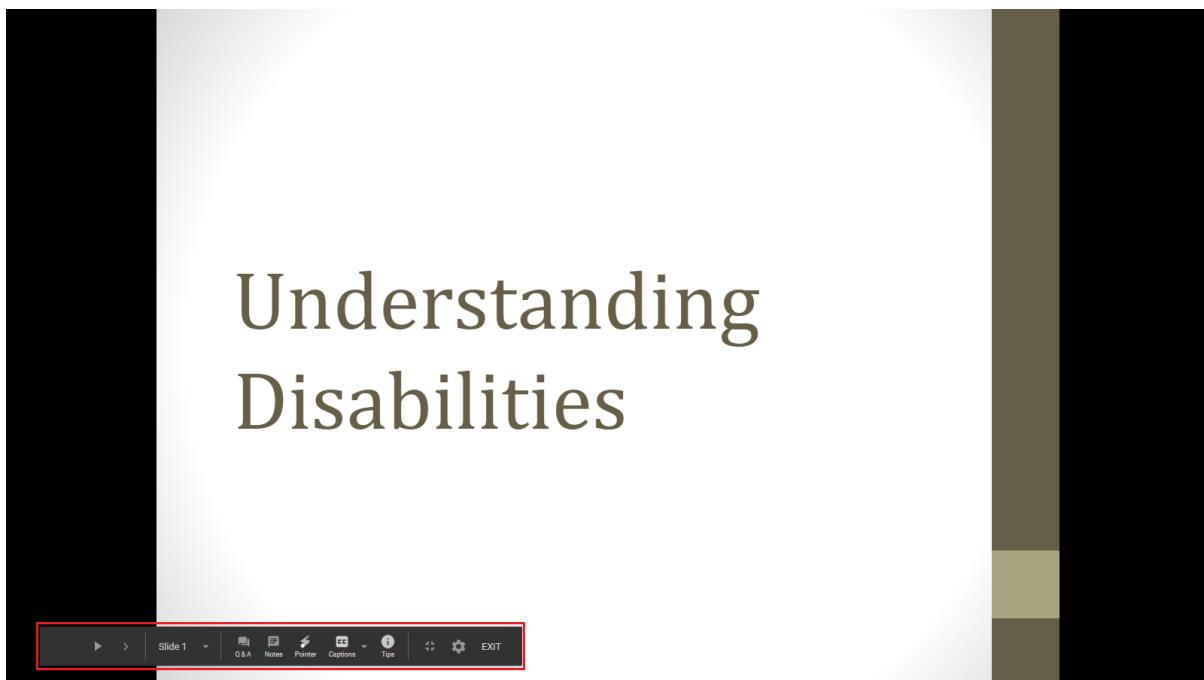
Step 8: After clicking on open button it will give you uploading dialog so wait then it will open the PPT in new tab



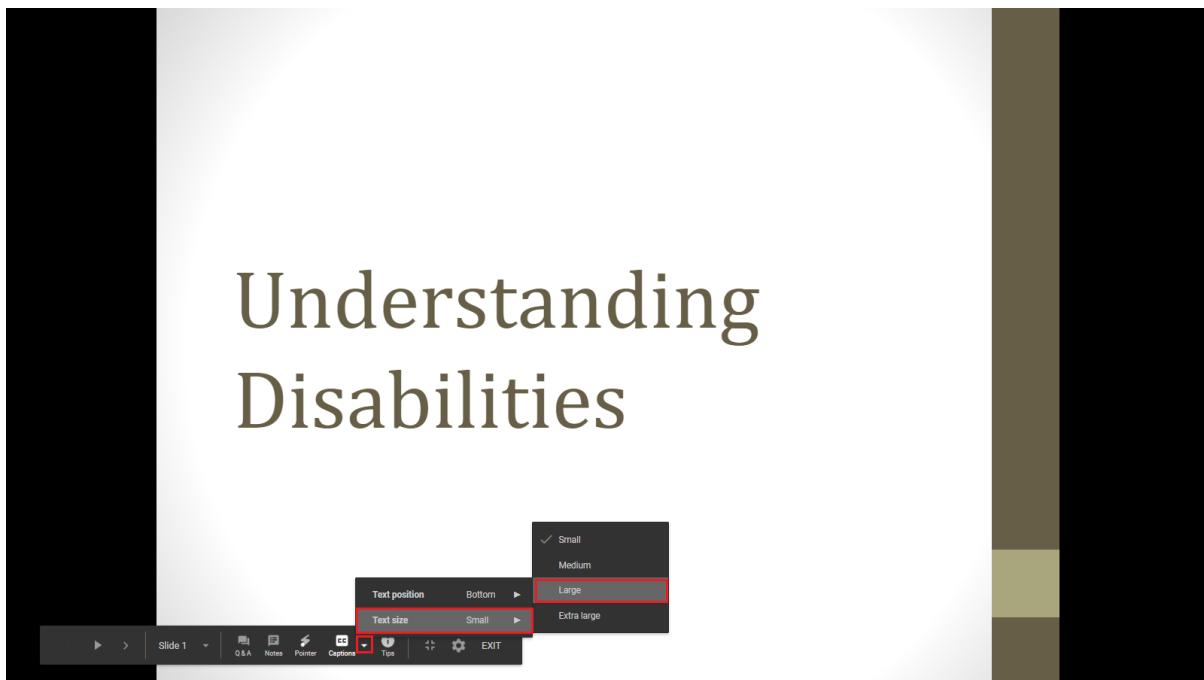
Step 9: After slide is open then click on Present button



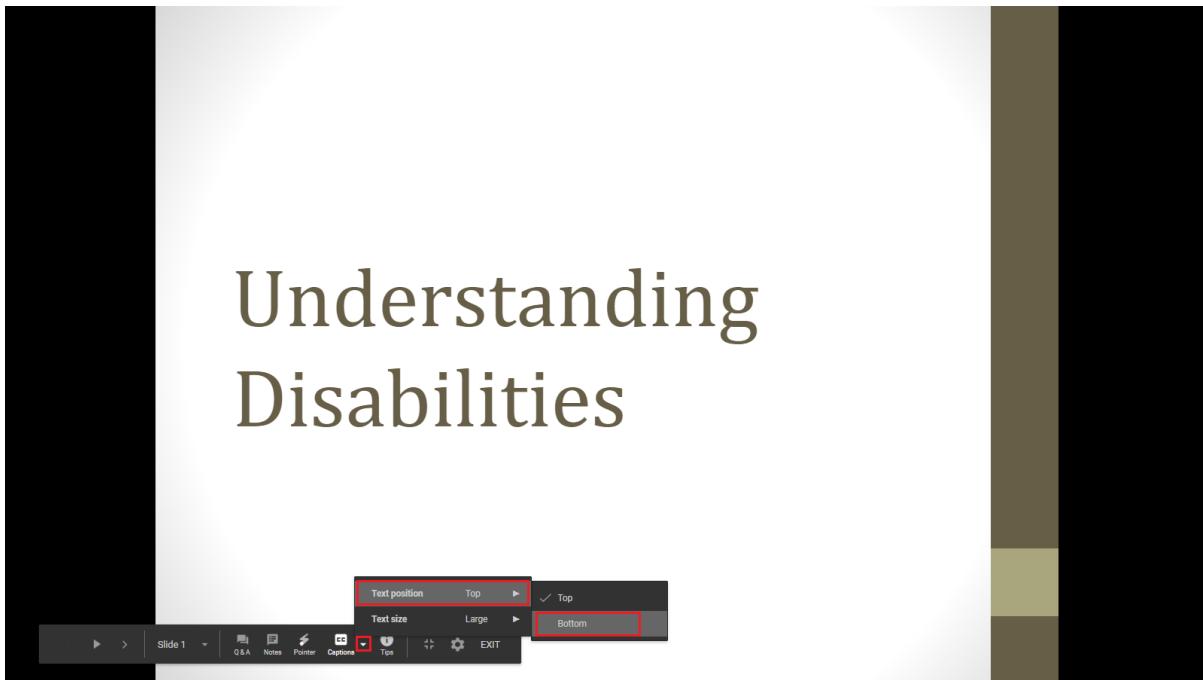
Step 10: Once the presentation view is on, it gives control panel



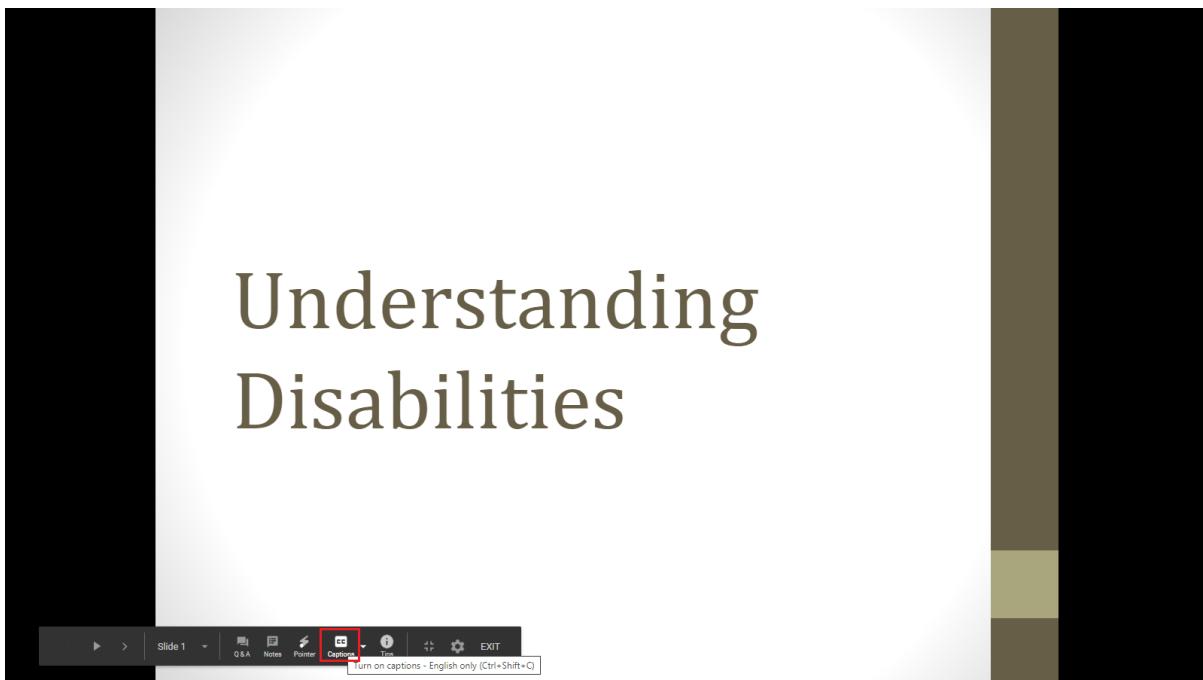
Step 11: Under Captions click on small arrow to increase the caption text size



Step 12: Under Captions click on small arrow to change the view of the captions either top or bottom



Step 13: In control panel click on captions to switch on the captions



Step 14: While speaking caption will become visible



How to Enable CC Live In Microsoft Powerpoint (Office 365)

Step 1: On the **Slide Show** ribbon tab, select **Subtitle Settings**. Or, you can adjust the settings without leaving your presentation through the context menu, **Slide Show** or **Presenter View** menus go to **Subtitle Settings, then More Settings**.

Step 2: Use **Spoken Language** to see the voice languages that PowerPoint can recognize, and select the one you want. This is the language that you will be speaking while presenting. (By default, this will be set to the language corresponding to your [Office editing language](#).)

Step 3: In the **Subtitle Settings** menu, set the desired position of the captions or subtitles. They can appear over the top or bottom margin of the slide (overlaid), or they can appear above the top or below the bottom of the slide (docked). The default setting is **Below Slide**.