Hello everyone,

In light of the switchover to ISU’s online based instructions and meetings, the VRAC wants to provide you easily accessible technology options to assist with the transition. These include but are not limited to online meetings, instruction/teaching, recording your desktop and other remote computing resources. We have highlighted a list of services available and a brief description on getting started with them below.

If you are familiar with a certain program or an online technology that works best for you, please continue to use it by all means. If you are not familiar with any online meeting software, then start with either WebEx or Google Meet as they will provide the most versatile options for you going forward. Sections 1 - 3 in this document lists various available technologies, and subsequent sections describe details - installation, instructions, limitations, etc.

1. Remote Course and Meeting Technology Options:

- Zoom - Share video, screen, mic with up to 100 people, time limit of 40 minutes.
- Google Meet - Share video, scene, mic with up to 250 people, no time limit.
- Microsoft Teams - Chat and share files with up to 5000 people, time limit of 8 hours.
- WebEx Meetings - Share video, screens, mic, and whiteboard with up to 1000 people, time limit of 24 hours.
- Panopto - Record lectures and upload them for students to view.
- YouTube - Live stream to millions or record and share with selective audience.
- Canvas - Canvas is the ISU content management solution to integrate your class work with your students online.

2. Recording Software for Recording your screen:

- Windows Game Bar - The easiest and quickest way to record in Windows with software already built into your computer.
- Apple Quicktime - The easiest and quickest way to record on a Mac with software already built into your computer.
- OBS Studio - The most versatile way to record your computer, whether it's Windows, Mac, or Linux.
- Simple Screen Recorder - Linux.
3. Remote Computing Resources:

- ISU VDI is available in certain departments to gain access to software that you can't have on your home computer, such as SPSS. Normally the VDI is behind the VPN, this restriction has been temporarily lifted.
- ISU VPN - You must use this in order to connect to some campus resources like Windows Remote Desktop or file shares of computers on campus.
- If you are the only user of the ISU Windows desktop computer you use, ask us about enabling Microsoft Remote Desktop. We are happy to turn this on and instruct you how to use it, but only if you are the only user of the computer.
- Remote Work Link from ITS: https://www.it.iastate.edu/remotework

1.1 Zoom

Zoom has been a standard technology used at ISU for several years. You may use Zoom to do face-to-face meetings at a distance with one or more people.

By default Zoom limits meetings to 40 minutes for up to 100 users, but longer meetings can be scheduled with a Zoom Pro license. Access to the Pro license is limited and may not be available to everyone. A one time installation of the Zoom software is required, regardless of standard or Pro license. Zoom has been time tested at VRAC, and we have been using it to conduct remote meetings and final oral exams. It works great for sharing your desktop, video feed, and audio with people on the other side of the world relatively effortlessly.

Log in here: https://iastate.zoom.us/

Test Meetings here: https://zoom.us/test

Install software here: https://zoom.us/download

Zoom limitations are listed on the pricing plans. Most of you all have basic accounts. https://zoom.us/pricing

How to Schedule a Zoom Meeting: https://youtu.be/ZAYv8sVPTxU

How to Join a Zoom Meeting:
1.2 Google Meet

Something you may not realize you have access to is Google GSuite Meetings. Google Meet is the professional version of Google Hangouts sold as part of GSuite Business and Enterprise accounts. Use this service with up to 250 people at a time to share desktop, video feed, and audio.

Limitations:
- Please be advised that Google Meet does not include a whiteboard like WebEx does.
- Invitations to Google Meet, unless for an immediately occurring meeting, do not go out by Email. They will instead appear in the users GSuite Calendar as a meeting invitation. If you want to send out an email about the meeting copy and paste the meeting link and email it out to the appropriate people.

You can log in with your enterprise (@iastate.edu) account here: https://meet.google.com/

More information is available from the Google Blog here: https://gsuiteupdates.googleblog.com/2019/10/host-hangouts-meet-meetings-with-up-to-250.html

Learn directly from this YouTube video about using Google Meet: https://youtu.be/fZ0bHbiBF1E

1.3 Microsoft Teams

Everyone at ISU has access to Microsoft Teams. This includes faculty, staff, and students. Teams supports up to 5000 members in a Team. There are some limitations on the number of teams, and the teams that a user can be a part of. More information about specifications and limits here: https://docs.microsoft.com/en-us/microsoftteams/limits-specifications-teams

How to use Microsoft Teams: https://youtu.be/jugBQqE_2sM
1.4 WebEx Meetings

WebEx Meetings at ISU allows collaborating with up to 1000 people simultaneously. WebEx can be accessed at: [https://iastate.webex.com/](https://iastate.webex.com/). Just like Zoom, it requires a one time installation of the Webex software. Once installed and logged in, you can share your screen, audio, white board, and video with people anywhere.

More information can be found here: [https://help.webex.com/en-us/h00r1p/View-Your-Cisco-Webex-Site-Maximum-Participant-Limits](https://help.webex.com/en-us/h00r1p/View-Your-Cisco-Webex-Site-Maximum-Participant-Limits)

How to use WebEx Meetings: [https://youtu.be/60lX_A3Inqo](https://youtu.be/60lX_A3Inqo)

CELT Page for WebEx integration with Canvas: [https://canvas.iastate.edu/courses/75/pages/webex](https://canvas.iastate.edu/courses/75/pages/webex)

1.5 Panopto

If you just want to record lectures to send to your students, you can use a service that ISU has called Panopto. You can log in to panopto at this link: [https://iastate.hosted.panopto.com/](https://iastate.hosted.panopto.com/)

Learn how to record with Panopto for Windows: [https://support.panopto.com/s/article/basic-recording-1](https://support.panopto.com/s/article/basic-recording-1)

1.6 YouTube

There is always YouTube. You can use YouTube to either upload desktop recordings or live stream to an unlimited sized audience. You can use YouTube with your ISU account by entering your full ISU netID@iastate.edu into the login field at Google.

To learn more about YouTube Live Stream, watch this video from YouTube Creators: [https://www.youtube.com/watch?v=Ok3qM3ecWJU](https://www.youtube.com/watch?v=Ok3qM3ecWJU)

1.7 Canvas

Canvas has become the standard way for online classes or any other classes to gather all the materials relevant to class in one general location. It is used for class materials, as well as testing, and grades.

Log in to Canvas at:
2. Recording Software for Recording your screen

When you use tools like Panopto, WebEx, and Zoom, you can record your desktop with any of the apps listed in the following sections 2.1 - 2.3.

If you want to record your desktop without these tools, here are a few things to consider:
- Do not record your desktop at a resolution higher than 1080p
- Do not record your desktop at a screen refresh rate higher than 60 Hz.

2.1 OBS Studio

Open Broadcast Software (OBS \url{https://obsproject.com/}) is a free and open source software available for Windows, Mac, and Linux. The program allows recording desktop or a specific window, with or without audio. Screen recordings are saved as MP4 video files. Audio alone can be recorded if so desired and are saved as MP3s. The files can then be uploaded to Canvas, YouTube, etc.

Written instructions, with pictures:
\url{https://www.wikihow.com/Use-OBS-to-Record-on-PC-or-Mac}

Video instructions:
\url{https://www.youtube.com/watch?v=DTk99mHDX_I}
\url{https://www.youtube.com/watch?v=_LWwqbHU8L0}

2.2 Windows Game Bar

Since Windows 10, all of Windows versions have come with recording software that is built into the Game Bar. If you use Windows, we recommend you use this software.

How to use Game Bar: \url{https://youtu.be/TOxzIeIUKjY}
2.3 Quicktime Player

Quicktime player is your best option for accomplishing video recording if you are using a Mac. It is built into macOS and works quite well.

How to use Quicktime Player to record your screen: https://youtu.be/fgBWvU3YNhM

2.4 Simple Screen Recorder

Use this only if you are using Linux.

Download: https://www.maartenbaert.be/simplescreenrecorder/

3.1 ISU VDI

You may wonder how to use software available only in computer labs. The ISU VDI lets you log in to computers remotely as if you were sitting in the computer lab. Normally you would need to be on the VPN first, but this restriction has been lifted temporarily. When you later need to be on the vpn. You man install it by going to vpn.iastate.edu.

Information is available here:
https://it.engineering.iastate.edu/how-to/install-connect-to-vdi-pc/#connect-vdi

Install the client from here:
https://my.vmware.com/web/vmware/info/slug/desktop_end_user_computing/vmware_horizon_clients/5_0

The login url is after installing the VDI is: vdi.iastate.edu

We hope this helps you understand your options as we move forward through this time. If you have any questions, please do not hesitate to ask us.

3.2 VPN

Using the VPN allows your computer to act as if it was actually connected and sitting inside of a building at Iowa State. This is important for things like connecting to file shares or connecting to SSH terminals that are restricted to on campus traffic only.
Install the VPN from here: https://vpn.iastate.edu

Then log in with your NetID and you will get looped through Okta and now be able to connect to campus resources that were otherwise not available to you before you were on the VPN.

4. Useful Links

Software for Students:
https://www.it.iastate.edu/services/software-students

Software for Faculty and Staff:
https://www.it.iastate.edu/services/software-faculty

Logins for all of University online resources at the ISU Login page:
http://login.iastate.edu/

ISU Campus Safety Page:
https://web.iastate.edu/safety/updates/covid19

ISU COVID-19 Page for Students:
https://web.iastate.edu/safety/updates/covid19/studentfaq

ISU COVID-19 Page for Faculty:
https://web.iastate.edu/safety/updates/covid19/employeefaq

ISU Course Continuity Page:
https://www.celt.iastate.edu/teaching/preparing-to-teach/course-continuity/

ISU Closings and cancelations:
https://web.iastate.edu/safety/updates/covid19/cancellations

Iowa Department of Public Health:
https://idph.iowa.gov/Emerging-Health-Issues/Novel-Coronavirus

CDC Updates:

CELT: How to accessify your course
https://www.celt.iastate.edu/teaching/effective-teaching-practices/accessify-your-course/
CELT: List of available support units to help
https://www.celt.iastate.edu/teaching/preparing-to-teach/course-continuity/know-where-to-go-for-help/

CELT: Support Documents
https://www.celt.iastate.edu/teaching/preparing-to-teach/course-continuity/online-delivery-methods/

ELO: Engineering Online - Liberal Arts and Sciences Online
https://www.elo.iastate.edu/

LAS Online:
https://lasonline.iastate.edu/discover-flexibility/

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